

Scale AVIATION Modeller International

WITH
PULL OUT
SCALE PLANS

Hawker HART

by Richard
J. Caruana

Volume 10 Issue 7 US\$7.99 Can\$9.49
0 56698 94972 5

Martin I67F
Junkers Ju 290A-5
Hispano Ha.III2 MIL
Flettner Fl 282 Kolibri
Grumman F9F Panther

Competition pg 695:
Win a Manchester



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604... News Update

The latest news on modelling products from around the world

610... Previews

An initial look at new kits that we have received for review

612... Reviews

The Review Team builds a selection of the latest kits

622... Accessories

This month we take a look at recent products from Galdec and Griffon Model Accessories

624... Modelling Products

New tubing set from Scale Caliber, some clear polyester sheet from Plus Models and non-toxic cement from Ambroid

626... Decals

Some of the latest sheets from Galdec and Rising Decals

regulars

- 686... The Bookshelf inc CD Rack
- 690... Clubs & Societies
- 692... Readers' Classified Ads
- 694... Events Diary
- 696... Shop Guide
- 697... Web Guide
- 698... Address List & Advert Index



**New Look
Model Aircraft
Monthly
see page 654**



features



628

Navy Blue Part I

A build of the Grumman Panther in 1/32nd scale from Fisher by David Francis



636

Luftwaffe Hummingbird

Randy Lutz builds the Flettner Fl 282 in 1/48th scale from the Huma kit



646

Hawker Hart

For a change this month, Richard J. Caruana takes a look at a biplane in the form of the versatile Hart



656

Sea Eagle

A build of the recently released Junkers Ju 290A-5 in 1/72nd scale from Revell by Richard A. Franks



666

Spanish Pigeon

Steve A. Evans builds the Hispano Buchon from the Hobbycraft 1/48th scale kit. Including photographs of the HA.1109 K1L and HA.1112 M1L Buchons at the Royal Spanish Air Force Museum



676

Martin 167F

Patrick Branly builds and updates the 1/72nd scale kit from Azur

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Scale Aviation Modeller International is always happy to review new products within its pages. Any item which you feel is appropriate will be given due consideration for inclusion in the title. Any company, trade representative, importer, distributor or shop which wishes to have products reviewed within Scale Aviation Modeller International should send them directly to the editorial address and clearly mark them for the attention of the Editor. Confirmation of receipt of the samples will be supplied if requested. For all international companies etc the above applies, but please ensure that the package is clearly marked for customs as a 'sample, free of charge' to reduce the risk of unnecessary delays. Thank you.

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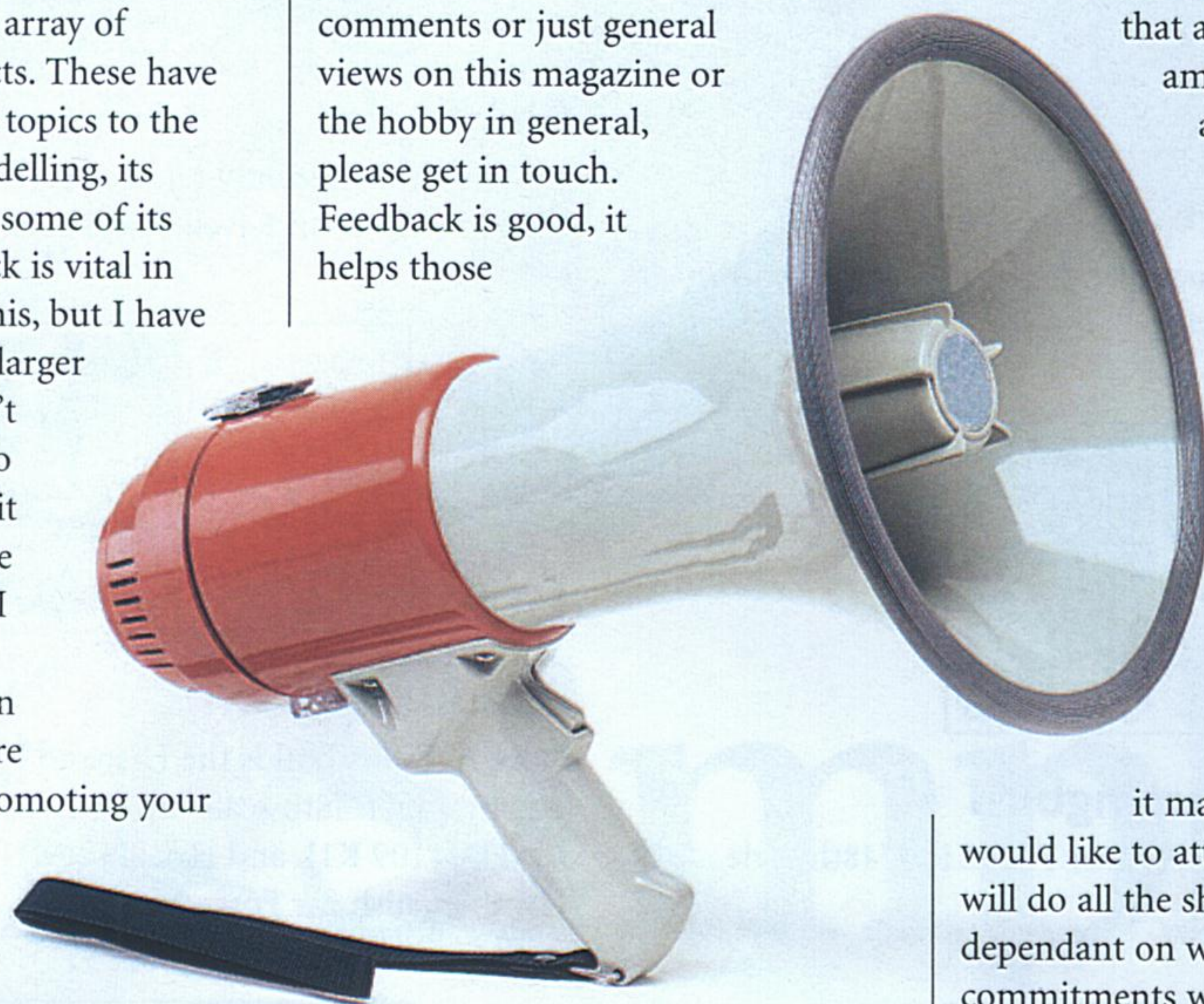
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editorial

What do you think?

In the last tens years of producing this magazine I have on numerous occasions been fortunate enough to have feedback from both readers and contributors with regard to a vast array of model-related subjects. These have ranged from specific topics to the whole subject of modelling, its attractions and even some of its pitfalls. Such feedback is vital in running a title like this, but I have to say that there is a larger proportion who don't pass on their views to those who can benefit from them (e.g. those doing the job = us). I know that today's society is information rich and that there are masses of ways of promoting your views and thoughts, but why some choose not to actually pass them on to those involved is beyond me? If any reader out there has anything to say about this magazine or the hobby in general, come on, tell us, as we are interested to hear your views. I appreciate that some may just have an axe to grind

in general with the hobby, so those I do not expect to contact us as they are not looking for a response, just the potential to vent their spleen. However if you have questions, comments or just general views on this magazine or the hobby in general, please get in touch. Feedback is good, it helps those



of us creating this magazine to see things from a different perspective and it also helps to highlight some of the thoughts and concerns you may have as a modeller about the hobby. I am not saying we can or will act on

all comments, but without getting any at all it is difficult to actually know your views.

On a similar tack my reduced workload of late has meant that after over two years I am once again able to assist poor Mark Peacock and attend some events throughout the year. I have done a couple already and we have a large number of others due during the rest of 2004. So, first of all, if you are arranging a show do drop us a line, as it may well be that we would like to attend. I can't say we will do all the shows, as that is dependant on what other commitments we may have and how practical it is to get to the venue, but we certainly want to get 'out and about' throughout the year. I must admit that doing the shows once again has rekindled my enthusiasm for the hobby and from the events I have also gleaned a lot of

information and comments from you, the active modellers. It is certainly true to say that for every good comment about something I get an adverse one and vice versa, but on the whole there are a few subjects that you have highlighted that I will set about dealing with in the coming months. I do not want to go into much detail at this point, but I am aware of your feelings on many aspects and will try to address them. As a final little note to this editorial, it was interesting to note just how many of you were very keen to see faster coverage of all the new mainstream injected kits in this magazine. To do this I am dependant on my contributors (and a great bunch they all are), but there is still a need for more. I can use anyone writing articles and 'Quick Build' type features on just about every scale and subject, so if you feel you fit the bill, drop me a line or email me and we can discuss matters further. This is your magazine after all, so I am always keen to get more actively involved in its creation.

Richard A. Franks

Editor, Scale Aviation Modeller International

news update



Grand Phoenix



1/48th

Released in mid-May by this manufacturer was the upgraded ex-Airfix Supermarine Seafire FR Mk 46/47 (#KT00548/£40.99). This kit includes all the Airfix parts plus a resin and etched brass cockpit and complete engine made by Aires. The kit is completed by with AeroMaster decals that offers three options.

EDUARD

1/48th

The all-new kit of the Dassault Mirage III will be released by Eduard in the next few months. The first release will be the Mirage IIICJ (#8102), which should be available by the time you read this. This will be followed by the Mirage IIIC (#8100) in June and the Mirage IIIC 'Profipack' (#8101) in July.

FUJIMI

1/72nd

Due for release in this scale at some point in the future from Fujimi are the Kaman SH-2F Sea Sprite (#30141/¥1000), Hughes 500MD/OH-6D (#30142/¥1000), Bell AH-1J Sea Cobra (#30143/¥1000),

Alpha Jet 'PAF Patrouille de France' (#72162/¥1400), BAe Hawk 'Red Arrows' (#72163/¥1400), F-16 'Thunder Birds' (#72164/¥1900), McDD F-4E 'Thunder Birds' (#72166/¥2200), McDD Phantom FG.1 '25th Anniversary' (#72167/¥2600), McDD Phantom FGR.2 'Alcock & Brown' (#72168/¥2600), MiG-29 'Stizhi' (#72169/¥1900), V.S. Spitfire 'Kings Cup Race' (#72170/¥1400) and McDD F/A-18B Hornet 'Sharp Shooters' (#72171/¥2000).

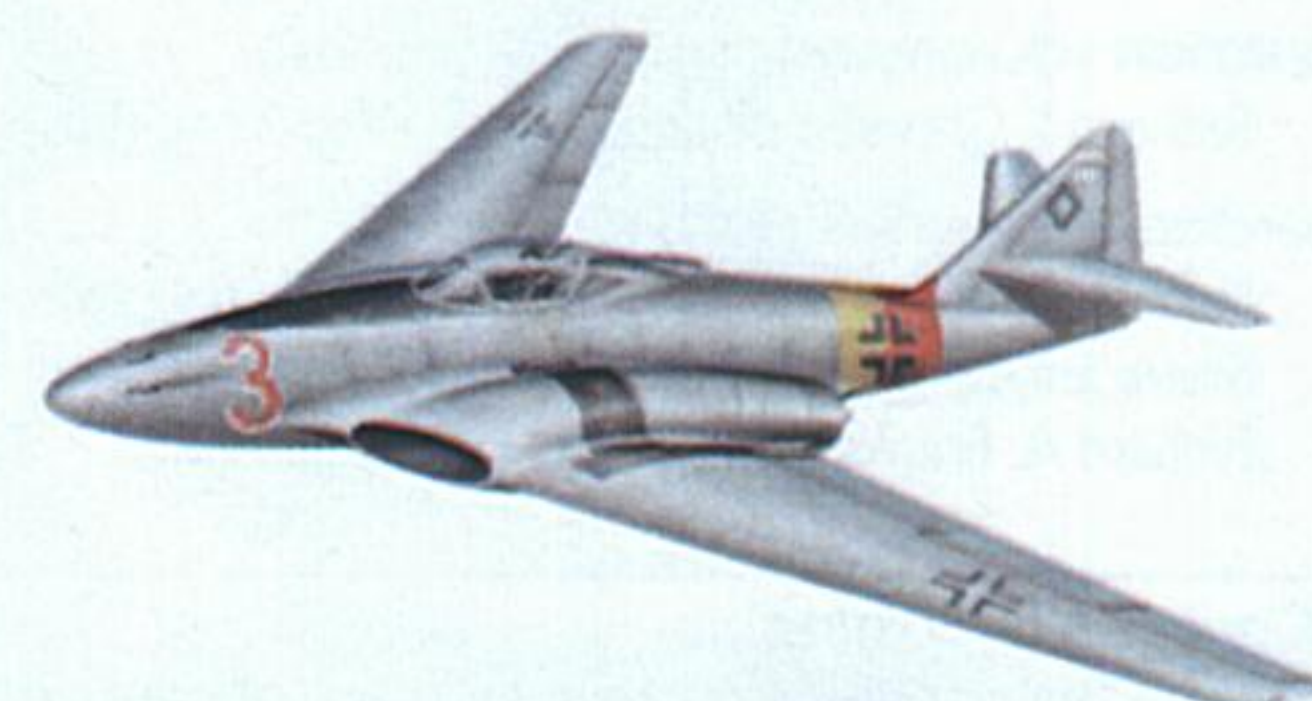
1/48th

Future releases in this scale will include the Focke-Wulf Fw 190D-9 (#30006/¥700), Douglas A-1H Skyraider (#30008/¥700), Messerschmitt Bf 110C/D (#30009/¥700), Westland Wasp HAS Mk 1 (#30138/¥940), Bell OH-58 Kiowa (#30139/¥940) and PAH.1/M MBB Bö 105 (#30140/¥940).



1/72nd

The eagerly awaited all resin kit of the Avro Manchester Mk I (#127/£59.99) arrived in the UK in late May along with the



Messerschmitt Me 262 HG.III (#131/£29.40).


**1/48th**

Released at last in early May were the all-new kits of the PZL P.24F 'Greek' (#48107/£16.99) and PZL P.24G 'Greece 1940/1941' (#48108/£16.99).

**1/72nd**

Released in the UK during mid-May were kits of the McDD AH-64D Apache Longbow (#04044/£8.99) and Bell AH-1 Sea Cobra (#04046/£8.99). Having checked, the former looks like the Hasegawa tooling, but I have no idea where the Sea Cobra came from and I am sorry to say my brief inspection did tell me that the mouldings were awful!

Seen at the recent model show in France was an assembled test-shot of the all-new BAC/Aerospatiale Concorde. Hopefully production will therefore commence before too much longer and we will all get the chance to make this impressive looking model.

**1/48th**

Released in the UK during late May was the all-new tooling of the Lockheed PV-1 Ventura (#6040/£33.50).

Future releases from FM will include the Breguet Br.1050 'Alizé' (#6041), Dassault Mirage IIIR/RD (#6036), Sikorsky S-31 'Flying Banana' (#6017), Republic F-84F (#6043) and Republic RF-84F (#6044). The most exciting news though is that they also intend to offer an all-new kit of the Handley-Page Halifax B Mk III (#6042)!


**1/72nd**

New kits available in the UK during late May included the MiG I-280E-3 (#7283/£7.65), Yak-54 (#7292/£7.65),



Mil Mi-3 (#7297/£7.99), Antonov An-26 (#72101/£36.80),



Messerschmitt Bf 109E-3/E-4 (#72117/£7.65) and the [very] limited edition kit of the Ilyushin Il-38 (#01072/£112.75).

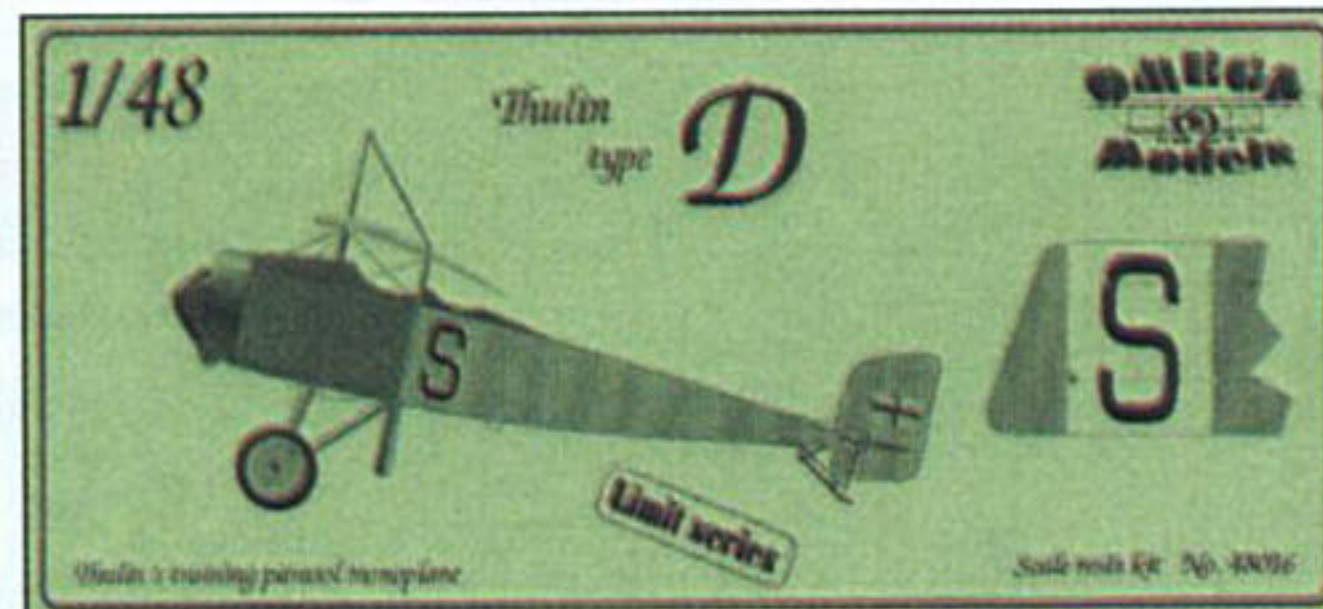

1/48th

The only aircraft kit from Revell recently was the Convair F-102A Delta Dagger (#04586/£14.99), which is the old Monogram tooling.

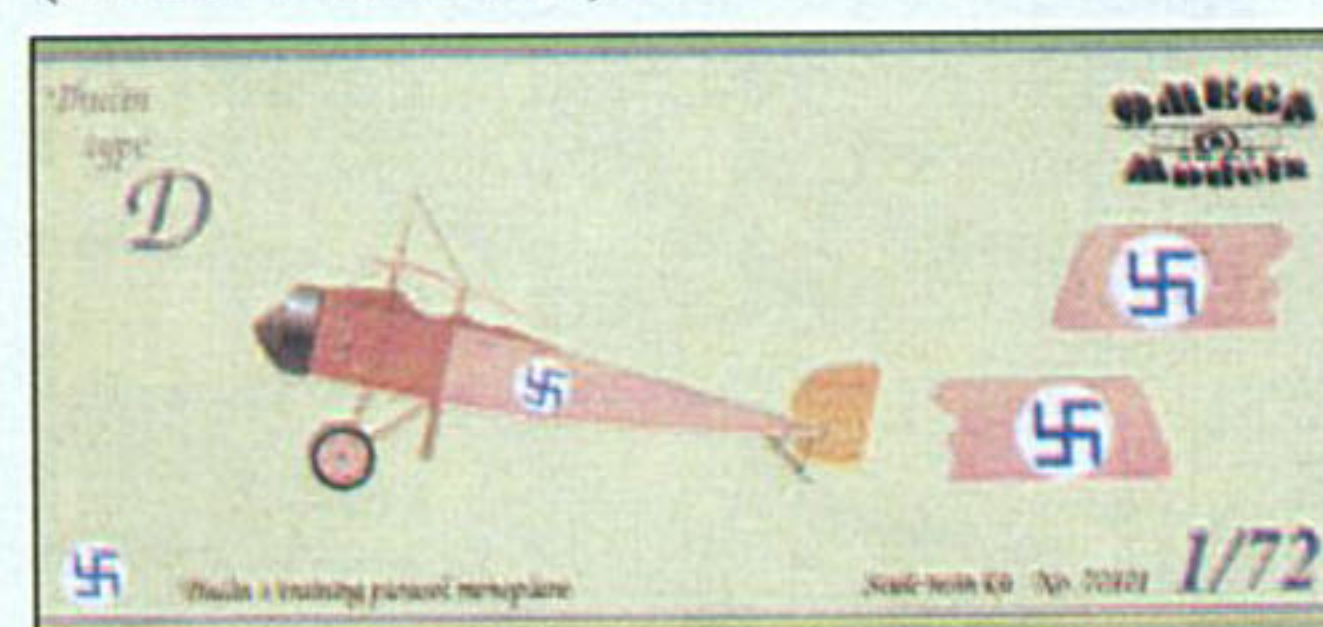
The only aircraft kit that should be due during June is the McDD F/A-18E Super Hornet (#04585/£19.99) which is not the Italeri kit, it is supposed to be an all-new tooling that Monogram were listing for release last year.

**1/72nd**

Released in the UK during early May was the all-new kit of the BAC/EE Canberra B Mk 20 'RAAF' (#7261/£30.00).


**1/72nd**

New resin kits from Czech Omega released in the UK in early May included the Yakolev I-28 (#7287/£25.25), Farman HF.XX (#7290/£13.60) and Thulin Type D (#72121/£25.25).



These were followed in late May by the Fokker D.VII Austro-Daimler single-seat (#72139/£27.70) and Fokker D.VII Austro-Daimler two-seat (#72140/£27.70).

**1/48th**

Released during early May in this scale was the Sikorsky S-XVI (#4803/£46.70) and it was followed in late May by the Thulin Type D, 1917 (#4816/£34.25).

**1/72nd**

Arriving in the UK during late May was a new kit of the Kawasaki Ki-102C (#122/£27.70) from this manufacturer.

HR model

1/72nd

The most recent new resin kit from HR is the Nieuport X.B (#7332/£15.25).

**1/20th**

An odd scale I know, but Nichimo are intending to reissue their kit of the Aero Sabura in this scale. The kit, as many may recall, was first released in the 1970s and included a wealth of detail including working undercarriage etc. The kit is due for reissue in Japan during July and is listed at ¥9800.


1/48th

Some of you may recall the lovely little kit of the Sovia S.21 that Fine Molds did a few years ago. This was in relation to the Hayao Miyazaki animated feature 'Crimson Pig', well they are about to produce this same subject but in 1/48th scale this time. All we know at present is that is due out in Japan in July at ¥2800.


**1/72nd**

Reissued items from Heller released during May included the SA 316/319 Alouette III (#80225/£3.99), PZL P.23A/B 'Karás' (#80247/£3.99), Dassault Mirage IIIE/R/5/BA (#80323/£5.99), Dassault Mirage 2000C (#80303/£5.99), Dassault Super Etendard (#80360/£5.99) and Boeing KC-135 Stratotanker (#80437/£22.99). The latter item is, of course, based on the AMT/Ertl kit.

**1/72nd**

The next item due in this scale from Tamiya will be the P-47 'Bubbletop' (#60770/¥1400), which should be on general release during July.

1/32nd

Due for release during July in this scale is the JASDF F-4EJ Phantom II (#60314/¥13000).

prize draw

Subscribers' Monthly Prize Draw May

Mr A Versiani, Rio de Janeiro, Brazil
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Mr F Harris, Cheshire, UK
• Modelling products

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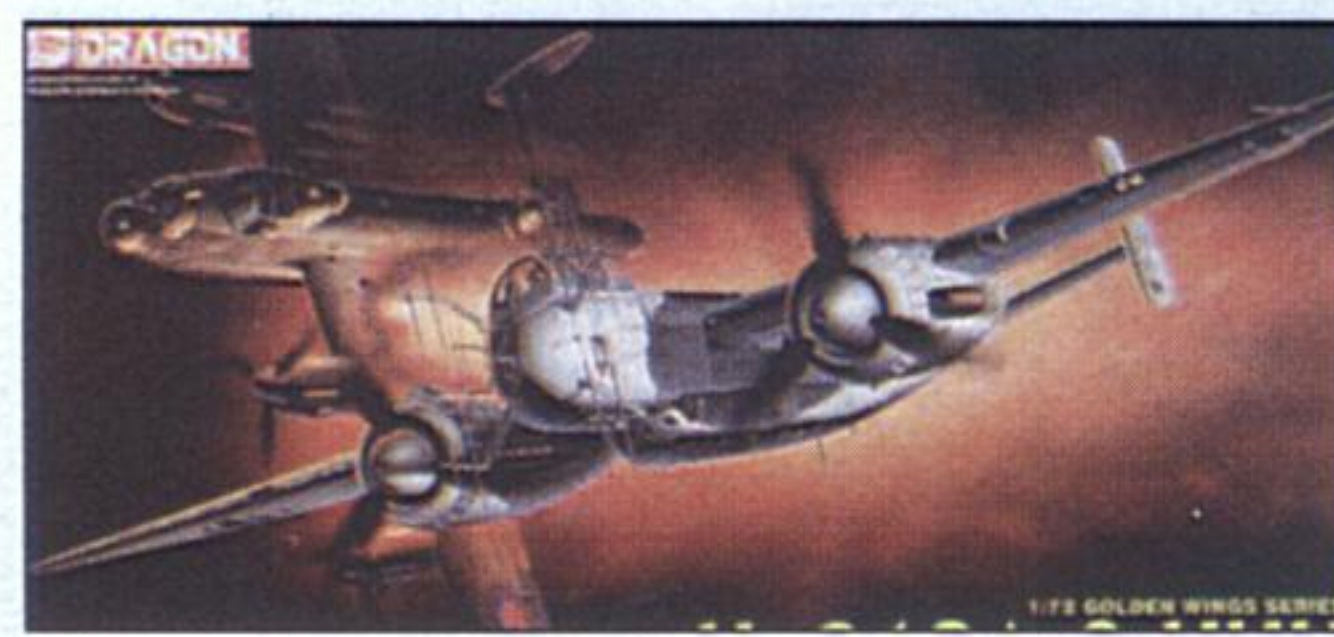

I/72nd

The most recent new resin kits from this manufacturer include the Pitcairn PCA-2 'Champion' (#7261/£26.30), Pitcairn XOP-1 'US Marines' (#7262/£26.30), R-7 Racek (#05772/£18.70) and W-1 Broucek (#06072/£18.70).



I/48th

Released in this scale during May were the Nardi FN.315 (#4808/£35.99) and Robinson R22 Mariner (#4809/£32.50).

I/72nd

Returning to the world market once again in late May was the Heinkel He 219A-0 Uhu (#5005/£11.99).



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If you are interested and would like to know more information please contact Jess on 020 7013 4476 or email jessica.versluys@rfdmedia.com





I/72nd

Arriving in the UK in late May were kits of the Curtiss Hawk H-75 'European War' (#SH72053/£11.20), Bell P-59 Airacomet



(#SH72058/£12.80) and Junkers W34 Hau (#SH72061/£14.40).



The next release in this scale will be the IMAM (Romeo) Ro.57 (#SH72081).



I/48th

The next items due for release in this scale will be the Phonix D.I 'K.u.L. Luftfahrtruppe' (#SH48027), Fairey Barracuda Mk II/II 'Hi-tech Version' (#SH48028) and Bell X-15A-2 with Scram Jet (#SH48029). At the time of going to press we had no confirmed UK release date or price for these items.



I/35th

The next big release from Trumpeter will be in this scale and will be the Mil Mi-17 (#05102/¥10800), which should be out in July although we have no confirmed UK retail price as yet.



I/72nd



Arriving in the UK in late May was the Felixstowe F.2A 'Early Version' (#019/£21.95). This kit is a revision of the previous F.2A kit.

I/48th



Generally available in the UK during late May were the eagerly awaited all-new kits of the Nieuport 28 (#403/£17.50) and the Grumman OV-1A/JOV-1A Mohawk (#406/£27.50).



I/200th

Due for release in the UK during May was the Boeing 737-400 'JAL Express' [New Markings] (#10649/£12.99), MD-87 'JAL' [New Markings] (#10650/£12.99), Boeing 767-200 'American Airlines' (#10653/£12.990) and the Boeing 747-400 in the new Northwest colours (#10652/£14.99).



This will be followed by the Douglas C-47 Dakota 'Israeli Air Force' (#10654) and the Boeing 747-400 'Lufthansa' (#10707).

Due for release in Japan during June will be the Space Shuttle Orbiter with Boosters (#10729) and the Boeing 747-400 'Japanese Government Air Transport' (#10709).

Hasegawa have also now announced their releases for the third quarter of 2004 (July to October) and in this scale they include the

Lockheed C-130H Hercules 'Belgium Special' (#10657), McD D MD-11 'Japan Airlines' (#10658), Boeing 777-300 'All Nippon Airways' (#10710) and Boeing 777-300 'Japan Airlines' (#10711).

I/72nd

Released in the UK during mid-May were the McD D F/A-18E Super Hornet (#E19/£13.99), Boeing B-17G Flying Fortress 'Swiss Air Force' (#00681/£19.99), North American F-100D Super Sabre '31st Tactical Fighter Wing' (#00682/£9.99), Boeing B-47E Stratojet '380th Bomb Wing' (#00683/£25.99), Mitsubishi XT-2 (#00686/£13.99), Lockheed S-3B Viking 'VS-21 Fighting Redtails' (#00688/£17.99), North American P-51B/C Mustang 'Blue Nose' (#00689/£9.99), Mitsubishi J2M3 Raiden '302nd Flying Group' (#00690/£9.99), Grumman F9F-8 Cougar 'VT-26' (#00691/£10.99) and V.S. Spitfire Mk VIII 'Pointed Wing' (#00692/£9.99).

Items that should have already been released in Japan by the time you read this include the Mitsubishi G4M2E Type 1 Model 24 Tei with MX7 Ohka Model 11 (#E20), Grumman Martlet Mk III 'No.805 Squadron' (#00694), IAI Kfir C2 '143rd Squadron' (#00695), Nakajima



Ki-44-II Shoki 'Flight Training Squadron' (#00696), Grumman



F6F-5K Hellcat 'Target-Tow Plane' (#00697), Cessna T-37C 'ASAS De Portugal' (#00698), Lockheed F-104S



Starfighter '82nd Anniversary' (#00699), McD D F-15A Streak Eagle



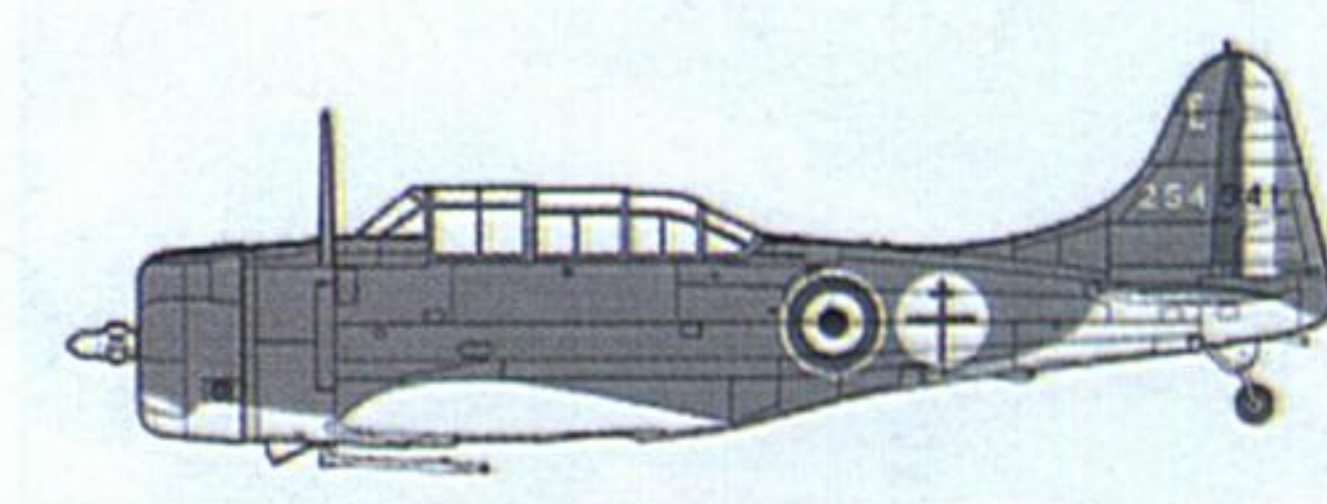
(#00700) and the F-16C Fighting Falcon 'Blue Nose' (#00701).



June releases in Japan should include the Curtiss P-40N Warhawk 'White Tail' (#00703), Chance-Vought F4U-1A Corsair 'RNZAF' (#00704), Panavia Tornado IDS 'Tiger Meet 2003' (#00705), Lockheed T-33A Shooting Star 'Whisky 4' (#00706), Messerschmitt Bf 109G-14 'Finland Postwar' (#00707), McD D F/A-18C Hornet 'VFA-131 Wildcats' (#00708) and North American B-25J Mitchell '486th Bomb Squadron' (#00709), McD D F/A-18F Super Hornet 'VFA-41 Black Aces' (#00710), Sepecat Jaguar E 'French Air Force 30th Anniversary' (#00711), McD D



F-4J Phantom 'Liberty Bell' (#00712), Lockheed US-2B Tracker 'VC-10' (#00713), Douglas A-24B Dauntless 'Free French Air Force' (#00715),



Nakajima Ki-43-II Hayabusa '25th Flight Regiment' (#00716) and



Fairchild-Republic A-10A Thunderbolt 'Mil Killer' (#00717).



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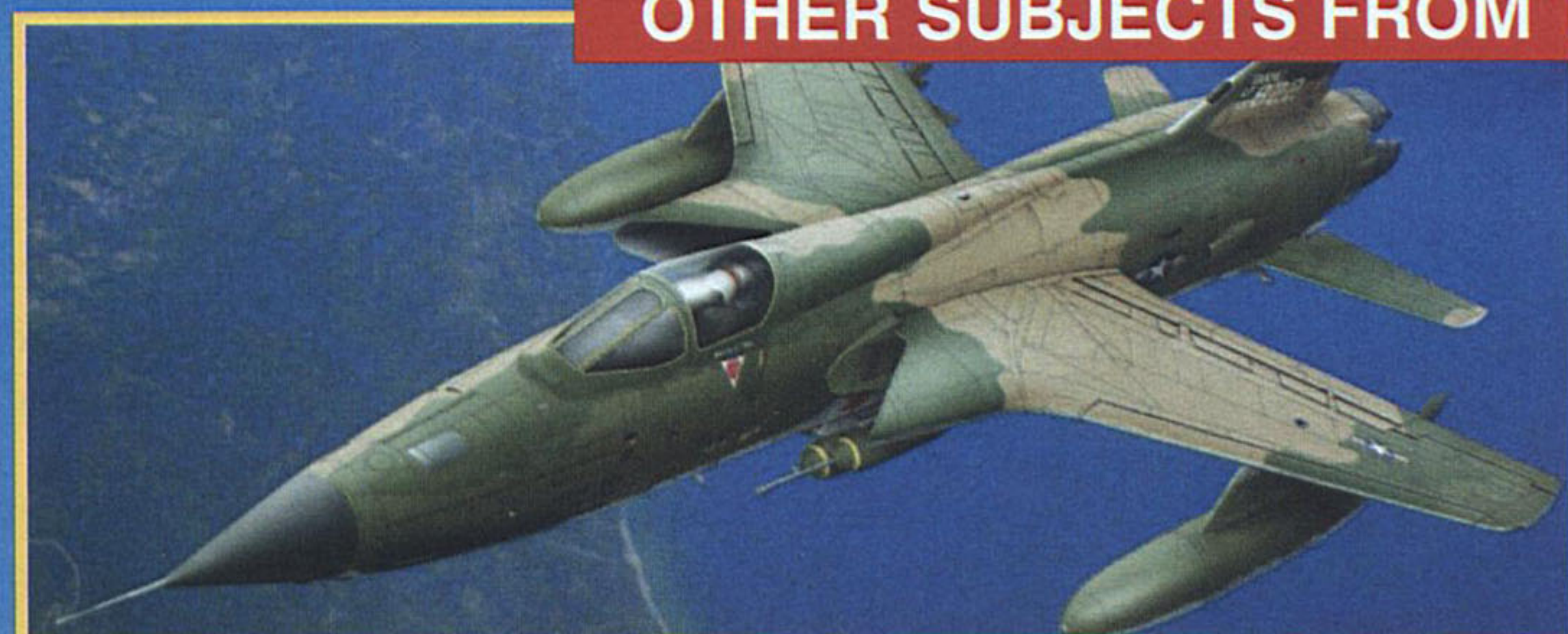
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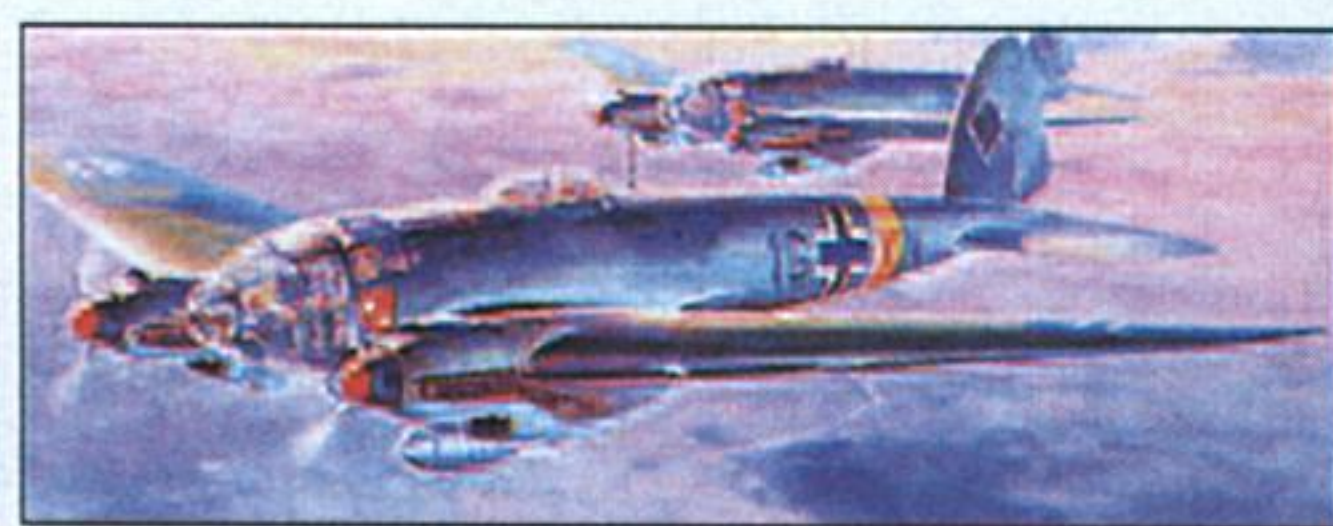
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Hasegawa have also now announced their releases for the third quarter of 2004 (July to October) and in this scale they include the McDD F/A-18E Hornet 'VFA-137 Kestrels' (#00718), G.D. EF-111A Raven 'Prototype' (#00719), Panavia Tornado GR Mk 1 'Desert Storm' (#00720), Curtiss Kittyhawk Mk IIa 'RNZAF' (#00721), Focke-Wulf Fw 190D-9 'JV44' (#00722), V.S. Spitfire Mk VIII 'US Army Air Force' (#00723), Lockheed F-104G Starfighter 'NASA' (#00724), Heinkel He 51 'Spanish Civil War' (#00726), Messerschmitt Me 262A 'ISS1' (#00727), Bristol Beaufighter Mk 21 'Green Ghost' (#00728), McDD F/A-18C Hornet 'VFMA-212 Lancers' (#00729), N.A. PBJ-1H Mitchell 'US Marine' (#00732), Hawker Hurricane Mk IIc 'North Africa' (#00733), Lockheed P-3C Orion 'JMSDF' (#00734), Grumman F-14A Tomcat 'VF-33' (#00735), Mitsubishi G4M1 Type 1 Model 11 '752nd Flying Group' (#00736), Republic P-47D Razorback 'Little Chief' (#00737), Grumman EA-6B Prowler 'VAQ-136 Gauntlets' (#00738), D.H. Mosquito FB Mk VI 'IDF' (#00739) and Panavia Tornado F Mk 3 'No.25 Squadron' (#00740). The big news though is that an all-new kit of the Heinkel



He 111 will be produced in this scale. So far the H-6 (#E21) and P (#E22) versions have been announced and

the UK price is confirmed at £24.99 each.

1/48th

Released in the UK during mid-May were the Canadair Sabre Mk 6 'Black Tulip' (#09532/£24.99), Messerschmitt Bf 109K-4 'Hartmann' (#09534/£17.99), Douglas A-4E/F Skyhawk 'VC-5' (#09535/£17.99), McDD RF-4EJ Phantom 'JASDF 501st Sqn' (#09537/£25.99), McDD AV-8B Harrier II 'Desert Harrier' (#09538/£18.99), Lockheed CF-104 Starfighter 'Canadian Air Force' (#09539/£17.99), Nakajima Ki-43-I Oscar '11th Flight Regiment' (#09540/£15.99), Republic P-47D Razorback 'The Pied Piper' (#09541/£17.99), Hughes 500MD Defender 'IDF' (#09542/£11.99) and the Mitsubishi A6M5 Zero Type 52



'Night Fighter' (#09543/£17.99).

Items that should have already been released in Japan by the time you read this include the Hawker



Hurricane Mk IIc 'North Africa' (#09544), F-16A Fighting Falcon



'Tiger Meet 2003' (#09545), Junkers Ju-87D Stuka 'Regia Aeronautica'

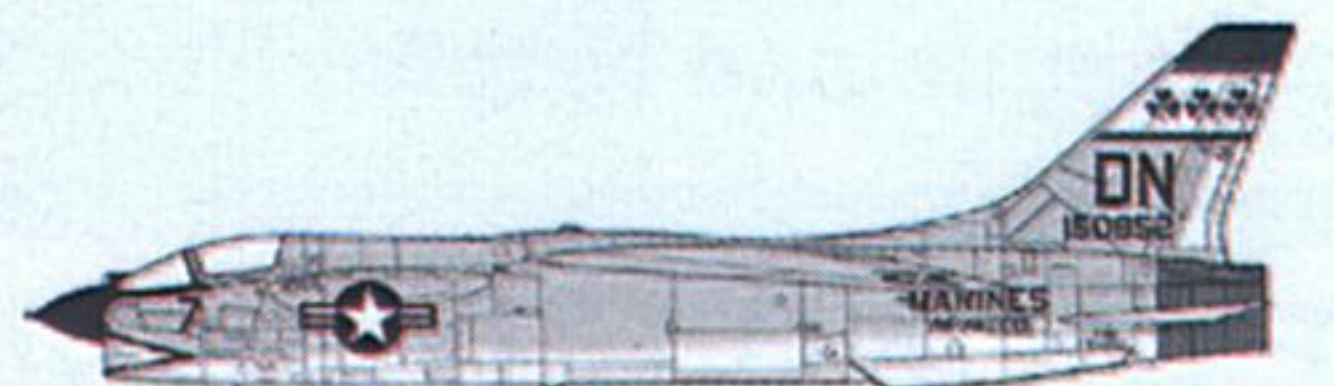


(#09546) and the Grumman F6F-3 Hellcat 'CVG-5' (#09547). These



should all arrive in the UK during June.

Items due for release in Japan during late May, early June include the LTV F-8E Crusader 'Marine



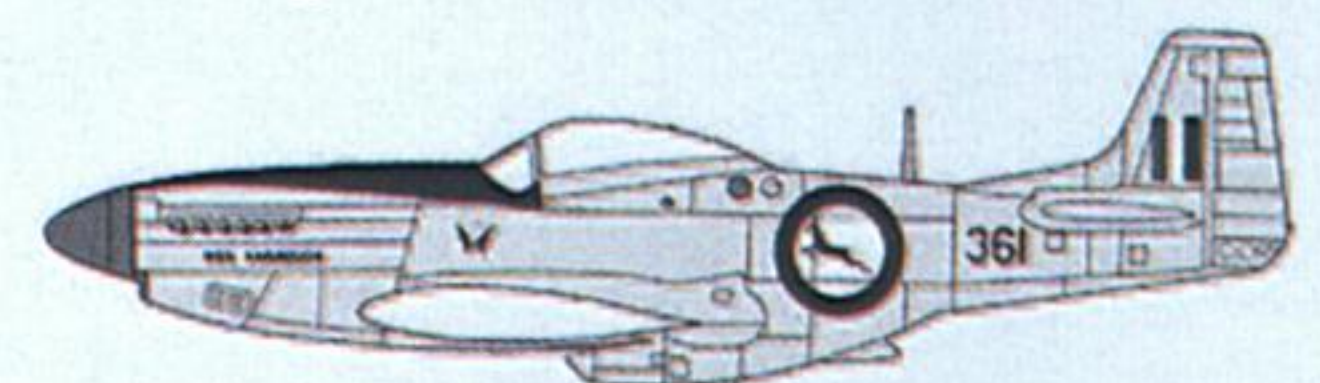
Corps' (#09551), Hawker Typhoon Mk Ib [Early Version] 'No.56



Squadron' (#09548), Republic P-47M Thunderbolt '56th Fighter Group'

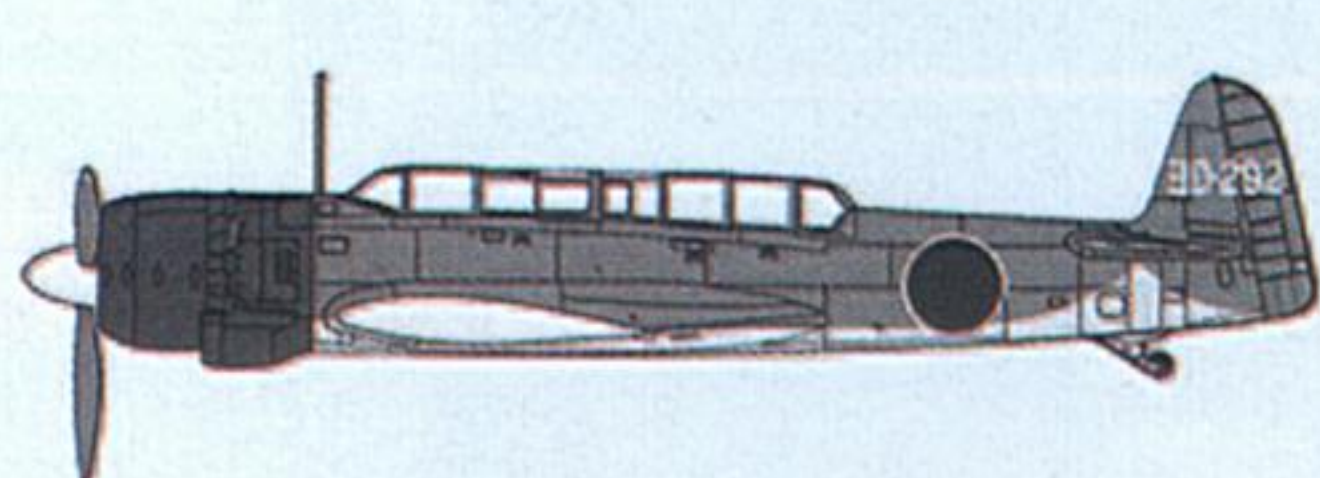


(#09549), North American P-51D/K Mustang 'United Nations Forces'



(#09550), Lockheed-Martin F-16CJ 'Misawa Japan' (#PT32) and the McDD A-4M Skyhawk (#PT33).

These will be followed in June by the Nakajima C6N1-S (Myrt) with



20mm Cannon (#09552), Nakajima B5N2 Type 97 (Kate) Model 3



'Folding Wing' (#09553), McDD A-4B/C Skyhawk 'Falklands'



(#09554), V.S. Spitfire Mk IXc 'Kenley Wing' (#09555), McDD



F-4EJ Kai '8 Squadron Panthers' (#09556) and the McDD AV-8B



Harrier 'Night Attack' (#PT34).



Hasegawa have also now announced their releases for the third quarter of 2004 (July to October) and in this scale they include the McDD RF-4C 'USAF' (#09557), Mitsubishi XF-2A (#09558), Messerschmitt Bf 109G-4 'Regia Aeronautica' (#09559), Lockheed F-104G Starfighter 'Bavaria' (#09560), Grumman F6F-3/5 Hellcat 'Minsi'

(#09561), Hawker Hurricane Mk I/II Trop 'Croix De Lorraine' (#09562), Messerschmitt Bf 109E-7 'Balkan Theatre' (#09563), Republic P-47D Thunderbolt 'Armee De l'Air' (#09564), Mitsubishi A6M3 Type 32 'Tainan Flying Group' (#09565), McDD F-4E Phantom 'IDF' (#-9566), Canadair Sabre Mk 4 'RAF' (#09567), Nakajima Ki-27 (Nate) '24th Flight Regiment' (#09568), Messerschmitt Bf 109G-10 'JG300' (#09569), McDD F/A-18C Hornet 'VFA-82 Marauders' (#09570), V.S. Spitfire Mk Vb 'USAAF' (#09571), Republic P-47M Thunderbolt 'Zemke's Wolfpack' (#09572), Mitsubishi A6M2b Type 21 '265th Flying Group' (#09573), McDD RF-4E Phantom '501 Squadron Shark Teeth' (#09574) and McDD A-4N Skyhawk (#09575), Mitsubishi F-1 (#PT35) and BAe Harrier GR Mk 7 'Royal Air Force' (#PT36).

1/32nd

Released in the UK during mid-May were the Mitsubishi A6M5c Zero Type 52 Hei '203rd Flying Group'



(#08146/£23.99) and the all-new tooling of the Focke-Wulf Fw 190A-8 (#ST21/£24.99).

Hopefully already released in Japan by the time you read this is the Messerschmitt Bf 109G-10 (#ST22).



This will be followed in June by the release of the McDD A-4F Skyhawk 'Blue Angels' (#08147).

Hasegawa have also now announced their releases for the third quarter of 2004 (July to October) and in this scale they include the Messerschmitt Bf 109G-4 'Regia Aeronautica' (#08148), Fi-156/MS500 Criquet 'Armée De l'Air' (#08149) and the Focke-Wulf Fw 190A-5 (#ST23). The latter item is now listed for release in July at ¥4200 in Japan.

obtaining copies

Apologies to those readers, especially those on the Shopsave scheme, who experienced difficulty in obtaining their copies of June's issue from their newsagents. Our magazine distributor's forwarding agents temporarily mislaid a number of copies thus delaying delivery into some wholesale points. This was eventually rectified.

Our thanks to the sharp-eyed readers who contacted us about this. Steps have been taken by our distributors to ensure that this is not repeated.

If you still need to get hold of a copy of the June issue we can supply directly at £3.00 per copy including postage.

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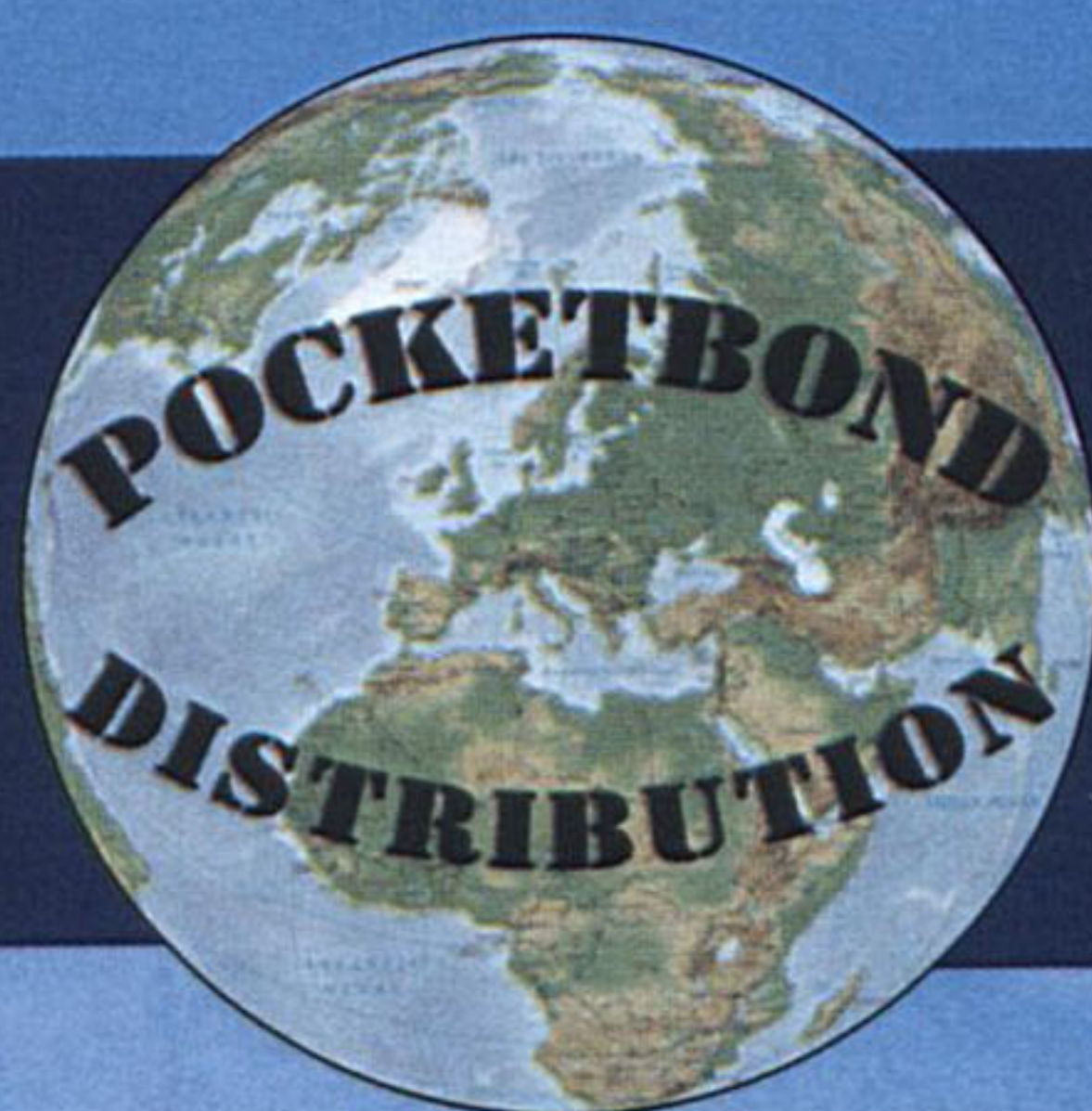


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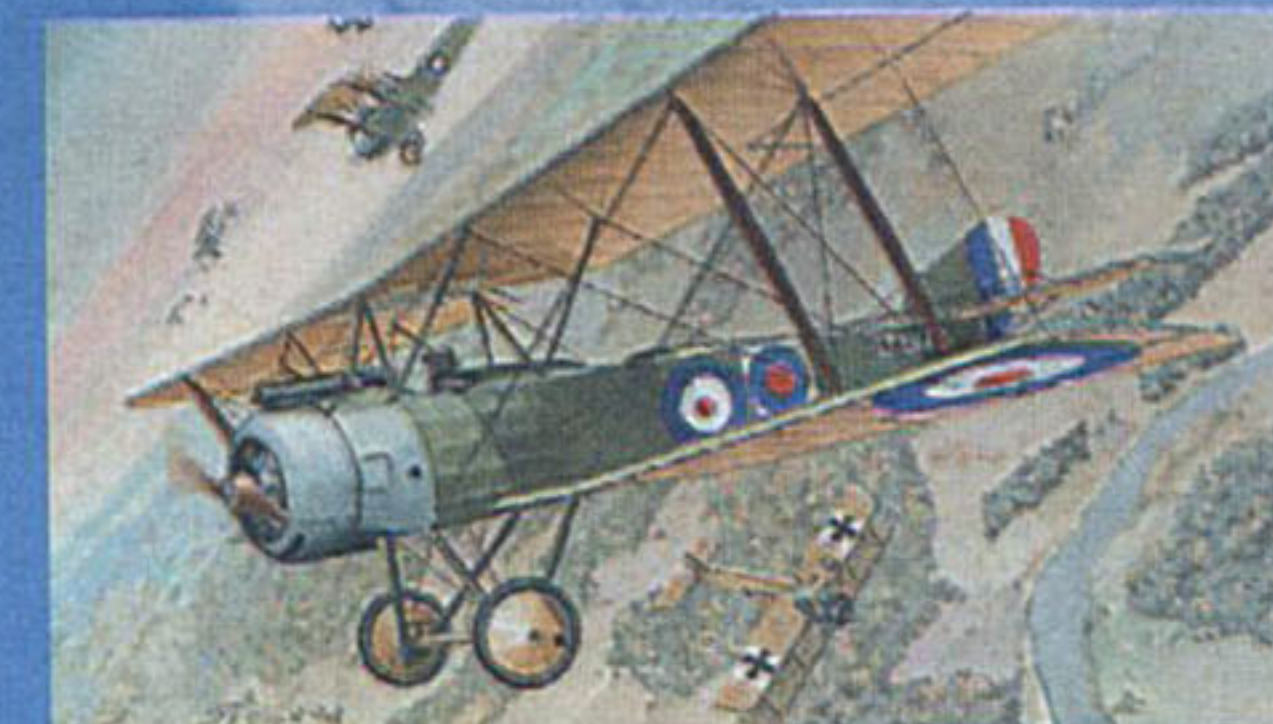
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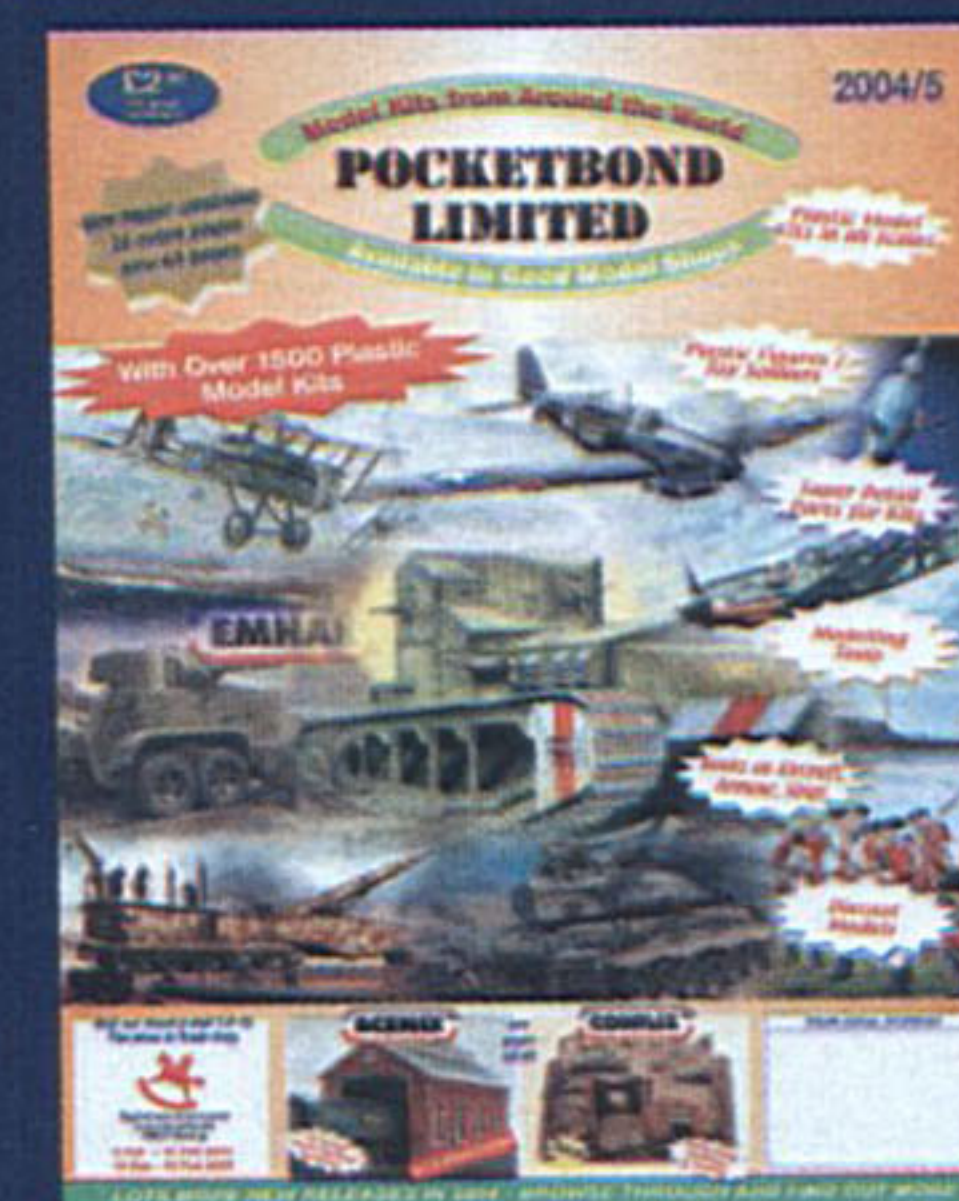
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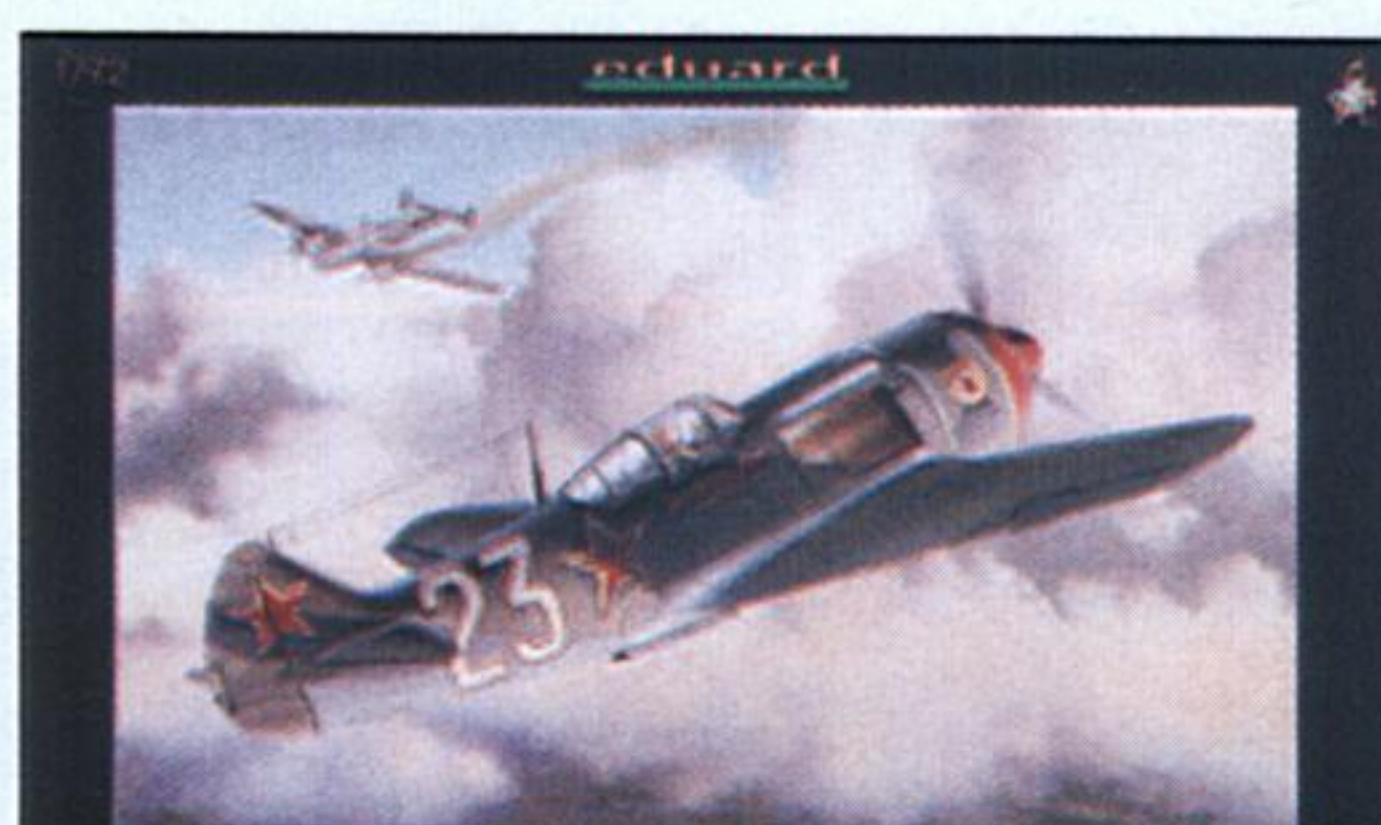


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previews

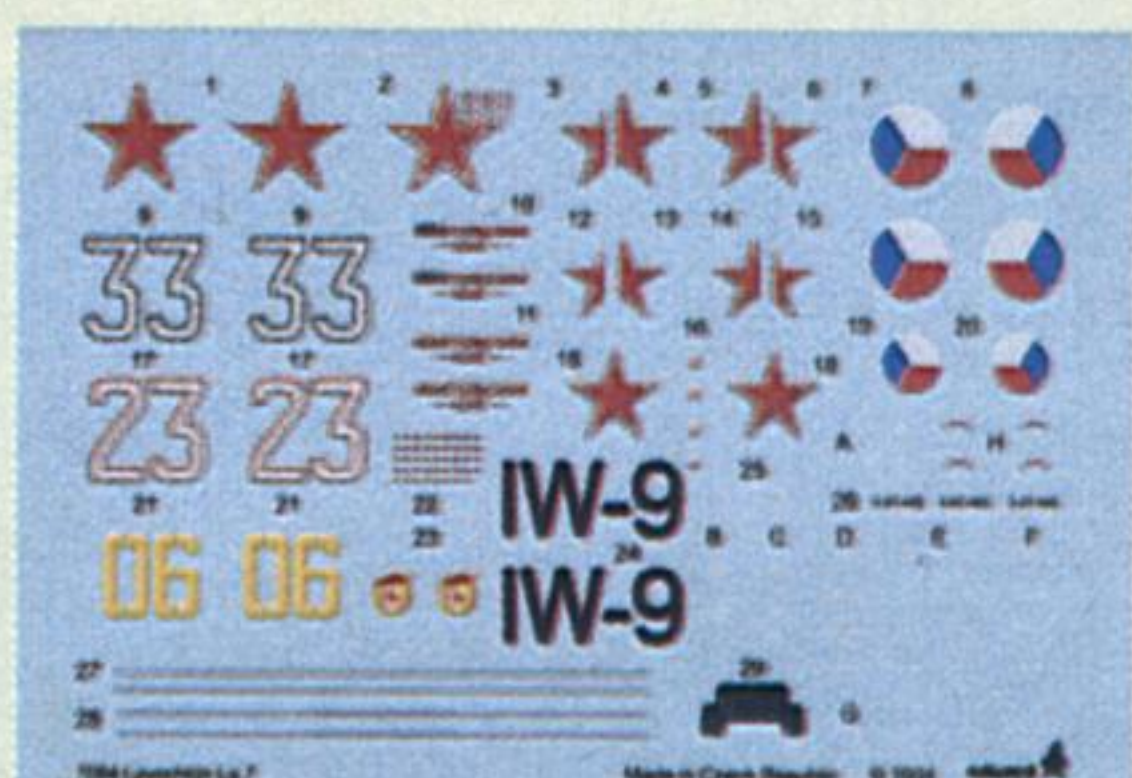
Note: We have now added a 'Production' status to these previews and all items are mainstream (unlimited) production unless otherwise stated - Ed



Lavochkin La-7

Lavochkin La-7 [Three Gun Version]

Scale: 1/72nd Kit No: 7064
Price: £TBA Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Injection Moulded Plastic
Parts: Plastic 58 (Grey), Clear 6
Also Includes: Express Mask canopy and wheel masks
Decal Options: 4
Manufacturer: Eduard M.A
Obtain in UK via: Hannants or LSA Models



Grumman OV-1A/JOV-1A Mohawk

Grumman OV-1A/JOV-1A Mohawk

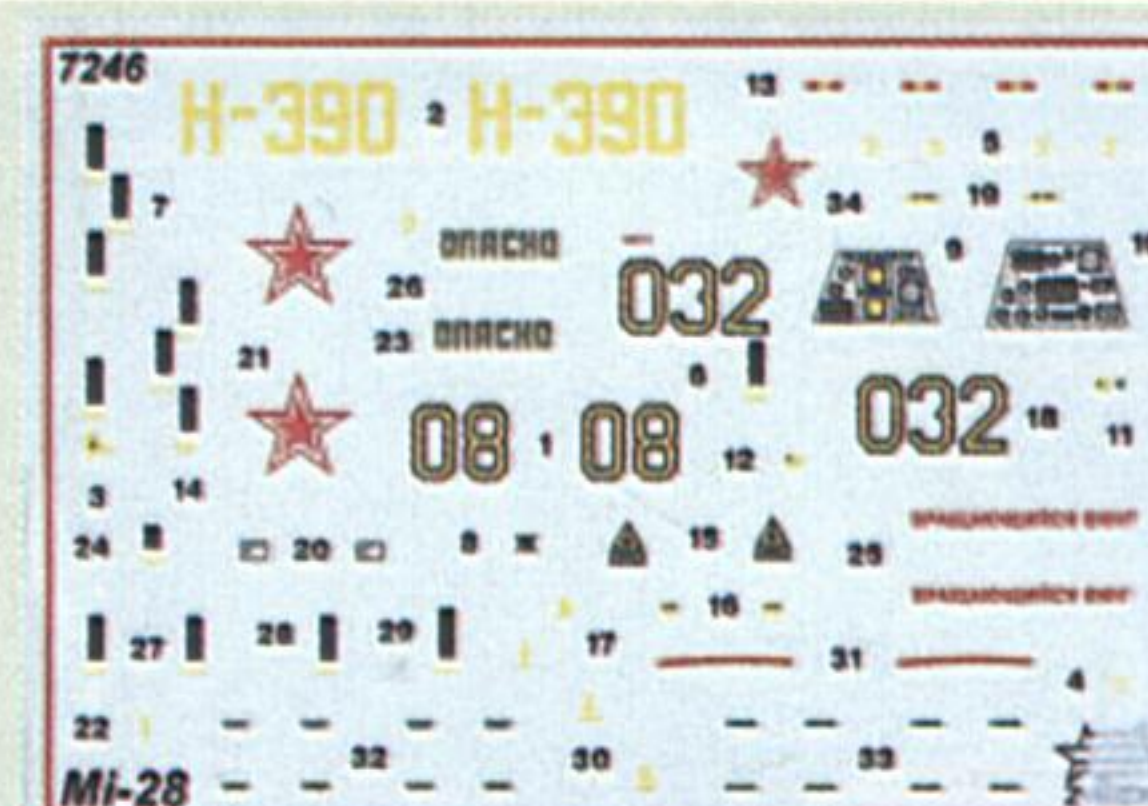
Scale: 1/48th Kit No: 406
Price: £27.50
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Injection Moulded Plastic
Parts: Plastic 110 (Grey), Clear 13
Also Includes: Framable Print of Box Art
Decal Options: 4
Manufacturer: Roden
UK Importer: Pocketbond Ltd



Mil Mi-28A HAVOC RUSSIAN ATTACK HELICOPTER

Mil Mi-28A Havoc

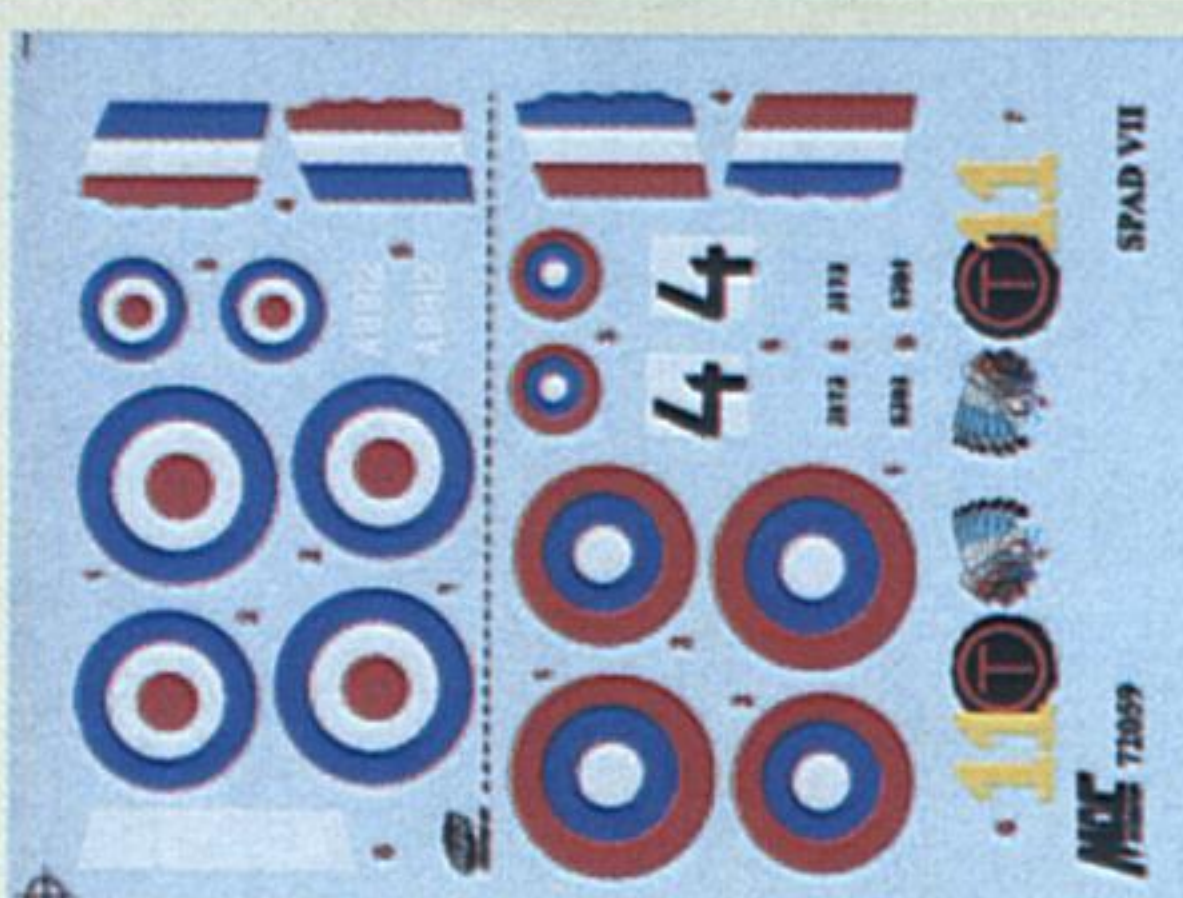
Scale: 1/72nd Kit No: 7246
Price: £7.99
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Injection Moulded Plastic
Parts: Plastic 99 (Grey), Clear 5
Decal Options: 2
Manufacturer: Zvezda
UK Importer: The Hobby Company Ltd



Spad VII C.1 'US Volunteers'

Spad VII C.1 'US Volunteers'

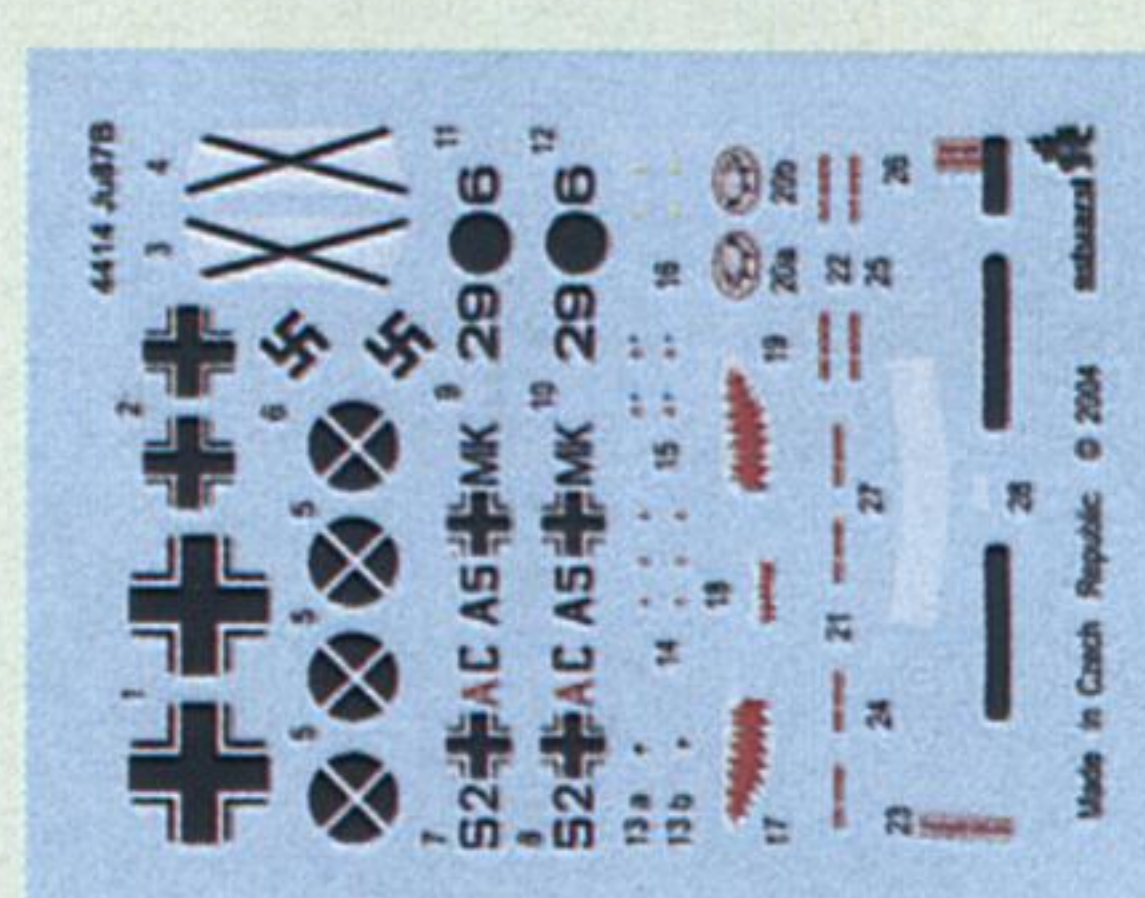
Scale: 1/72nd Kit No: 72049
Price: £TBA
Panel Lines: Recessed ✓
Status: Reissue (New Decals) ✓
Type: Injection Moulded Plastic & Etched Brass
Parts: Plastic 45 (Tan), Etched 14
Decal Options: 4
Manufacturer: Mac Distribution
Obtain in UK via: Hannants



Ju-87B

Junkers Ju 87B

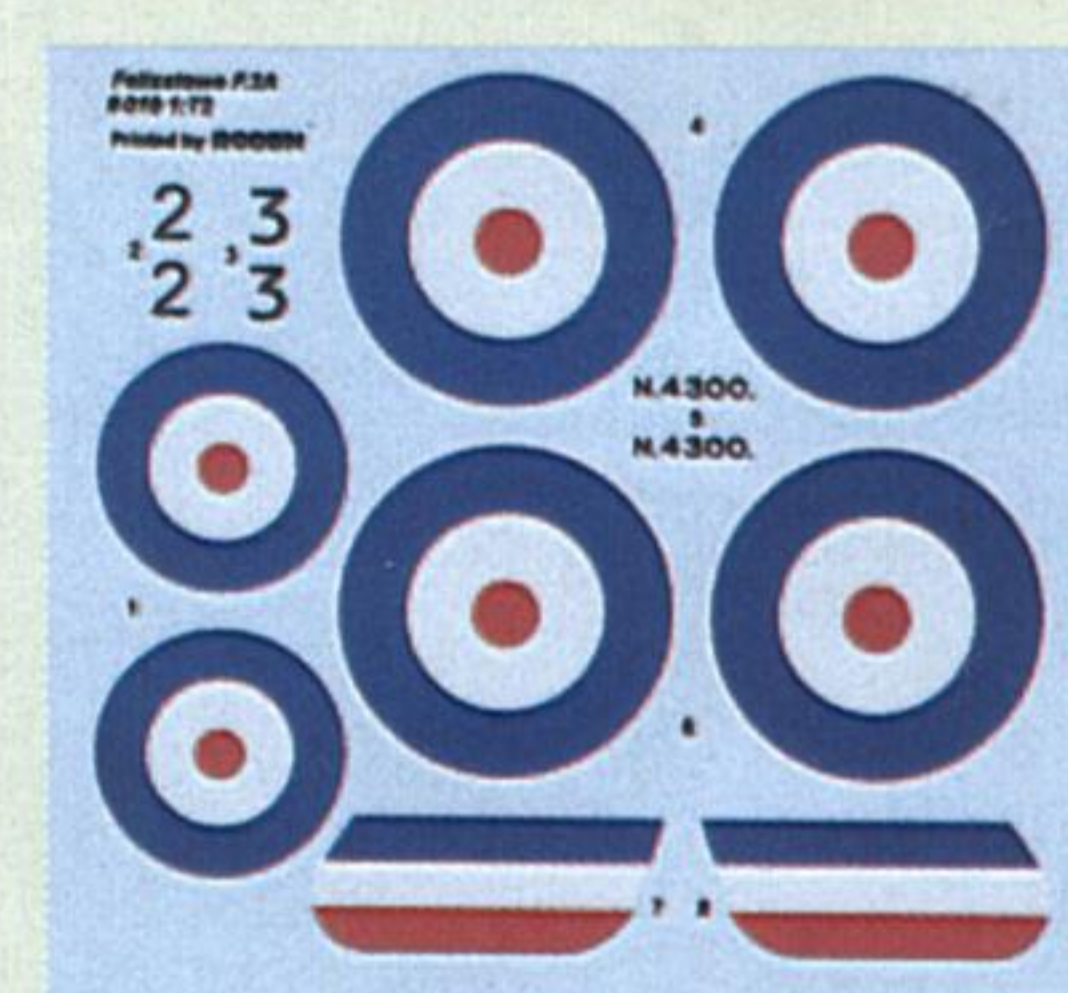
Scale: 1/144th Kit No: 4414
Price: £3.35
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Injection Moulded Plastic
Also Includes: Express Mask wheel and theatre marking masks
Decal Options: 4
Manufacturer: Eduard M.A
Obtain in UK via: Hannants or LSA Models



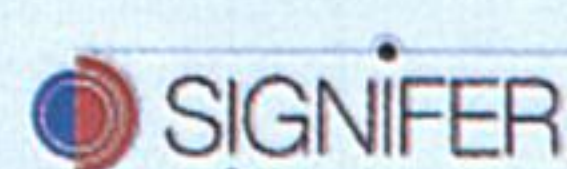
Felixstowe F.2A

Felixstowe F.2A (Early Version)

Scale: 1/72nd Kit No: 019
Price: £21.95
Panel Lines: Recessed ✓
Status: Revised Tooling ✓
Type: Injection Moulded Plastic
Parts: Plastic 236 (Grey)
Decal Options: 4
Manufacturer: Roden
UK Importer: Pocketbond Ltd



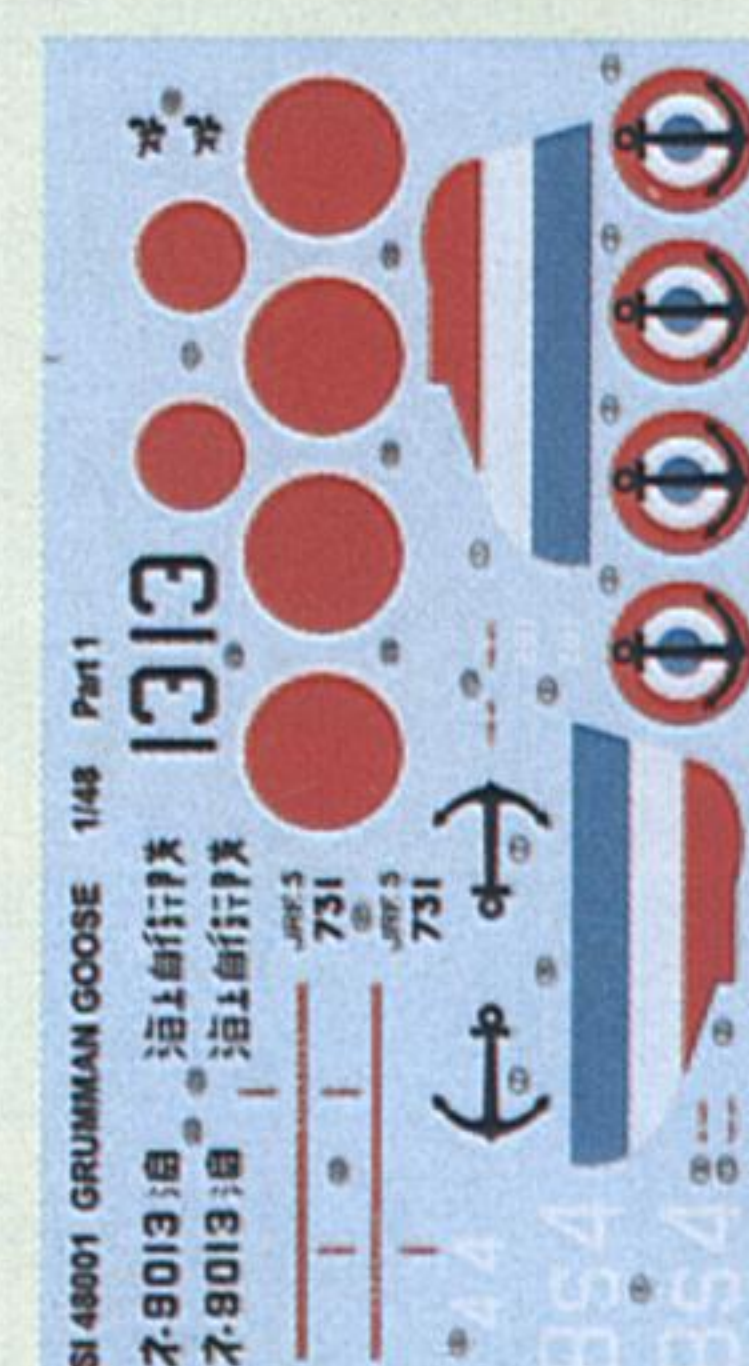
GRUMMAN "GOOSE" JRF-5



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AMPHIBIAN SEAPLANE
INJECTED PARTS AND
HIGH QUALITY RESIN
INJECTED WINDSCREENS
4 DECORATIONS
US NAVY-ENGLAND
FRANCE-JAPAN
WING SPAN 315 mm
LENGTH 245 mm
SCALE 1/48
KIT No SIG 48001

Grumman JRF-5 Goose

Scale: 1/48th
Kit No: SIG 48001
Price: £44.95
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Injection Moulded Plastic, Resin
Parts: Plastic 29 (Grey), Clear 1,
Vac-formed 1, Acetate 10, Resin 70,
Clear Resin 4
Decal Options: 4 (France, USN, UK & Japan)
Manufacturer: Signifer
UK Importer: Hannants



NAVY BLUE PART I



1/32nd Scale

Manufactured by

Fisher
 MODEL & PATTERN

Grumman Panther

by David Francis

This is the first in an occasional series of articles featuring United States Navy and Marine aircraft in 1/32nd scale. I am planning on updating some of the older kits that you find on the model shop shelves gathering dust as well as building the latest new kits. For the first instalment in the series I am using a new model from a new company, the Grumman Panther from an American company, Fisher Model and Pattern.

I had never heard of this company when I found references to a 1/32nd scale resin Panther being produced, but a visit to the Fisher website and I knew I just had to have one. But before we get down to the kit a little bit of history. Paul Fisher founded Dragon Models in 1978 but this name was sold to the Chinese and is now known for

producing high quality injected plastic kits. After selling the Dragon name he changed his company name to Fisher Model and Pattern, and up until now he has concentrated on producing a large series of detailed 1/24 scale resin cars. The Panther is the first in a new range of 1950/60 jet aircraft from him.

The Kit

I ordered my kit directly from the manufacturer and a week later a well-packaged parcel arrived. On opening the box I was staggered by the contents, the first thing that struck me was the resin. It feels completely different from the normal resin used in the accessory market and it is far harder, is very smooth and tactile and all detail is in the form of fine recessed panel

lines. Another difference is the complete lack of casting blocks which allowed a quick test fit of some of the components that showed an almost snap-fit construction.

Two major parts dominate the box. The fuselage is moulded in one piece and is hollow cast. This does mean that you can fit all the internal detail parts in through the openings for the wing and air brake bay. The wing itself is moulded with a section of the lower fuselage and features a small mould seam, one of the few areas that needed some cleaning up.

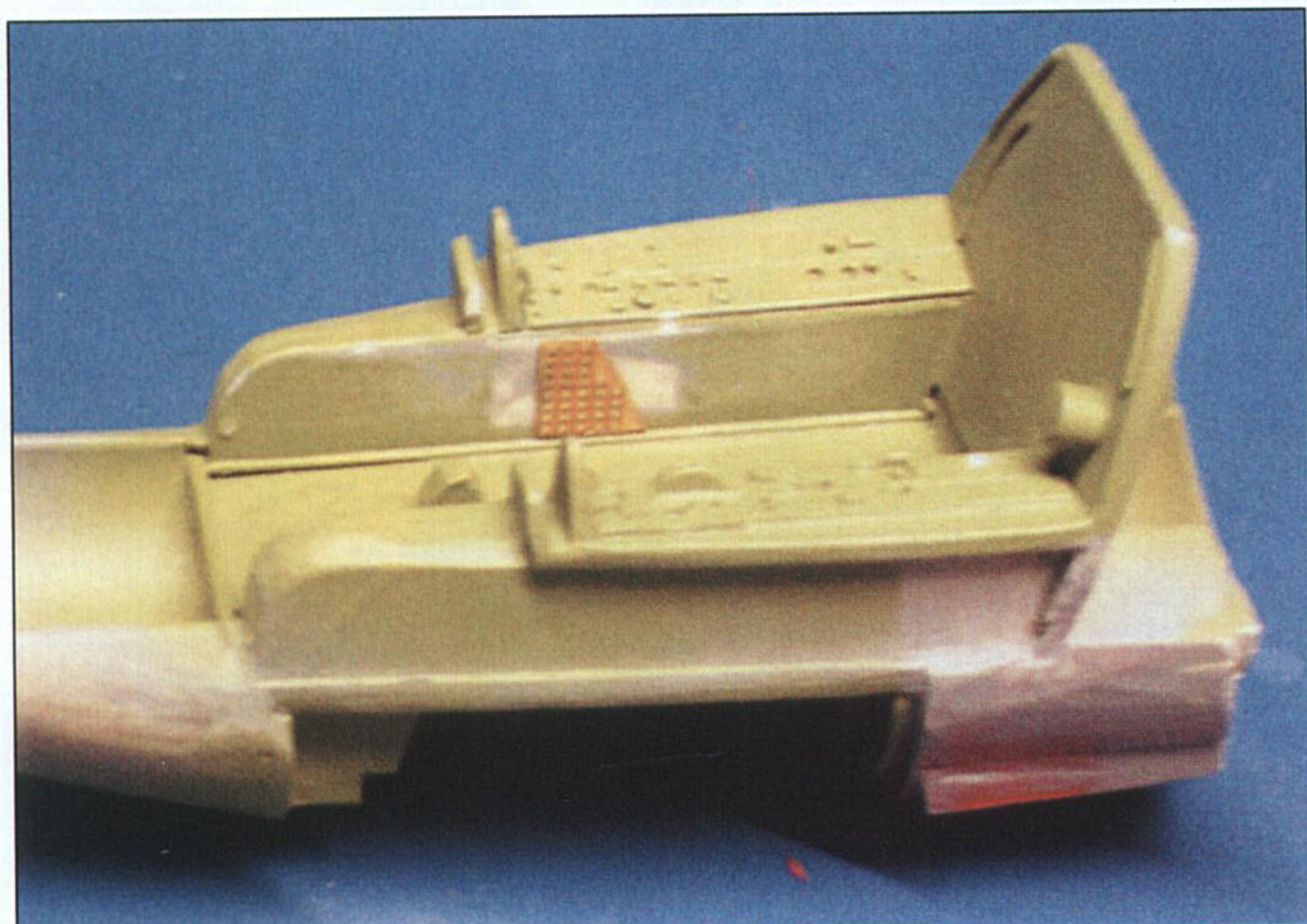
The rest of the kit comes in individual bags and features some of the best castings I have seen in all my years of modelling. The instructions come as a twelve-page instruction manual combining black

and white detail photographs of the model assembly and a clear descriptive text. A separate four-page photocopied instruction sheet provides detail of the three colour options and a stencil placement guide plus a small hints and tips section. Also supplied are three decal sheets, a large sheet of etched brass and some clear plasticard and plastic strip.

This is the most complete out-of-the-box project you could get with no need for any aftermarket accessories. In fact comparing the mouldings to my references I could only find a few areas to which I could add any improvements.

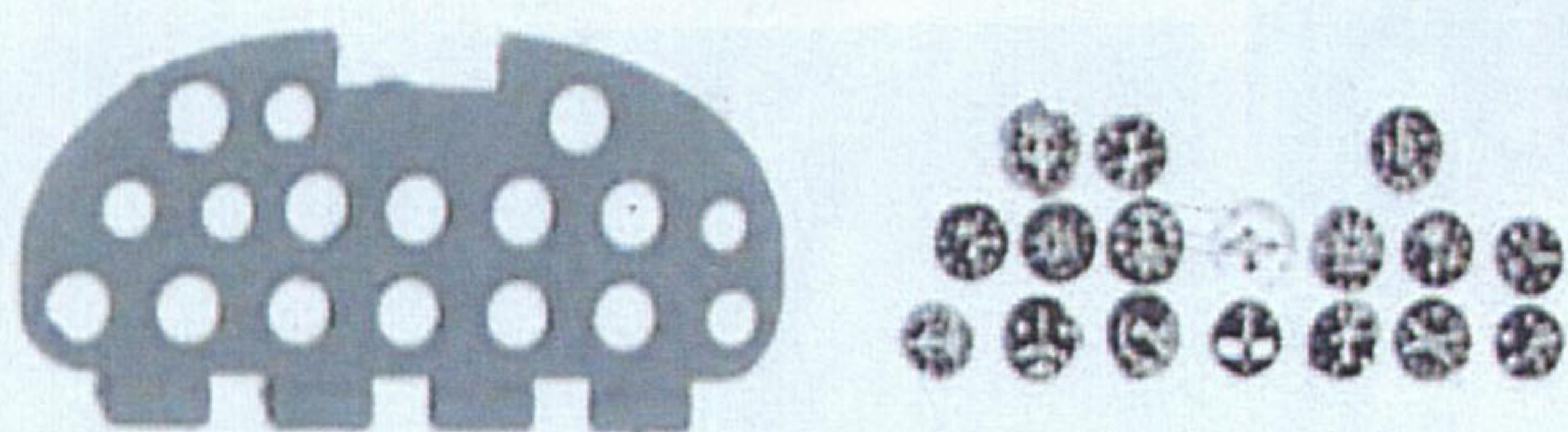
Construction

The first step is to thoroughly wash all the parts, to remove the mould release agents, using a mix of warm



The basic mouldings of the cockpit tub plus the brass fuse panel not mentioned in the instructions

very careful to align them to the r
e) into the tray at the front to serve



Three sets of instruments are provided on the instructions to be used behind the brass fascia



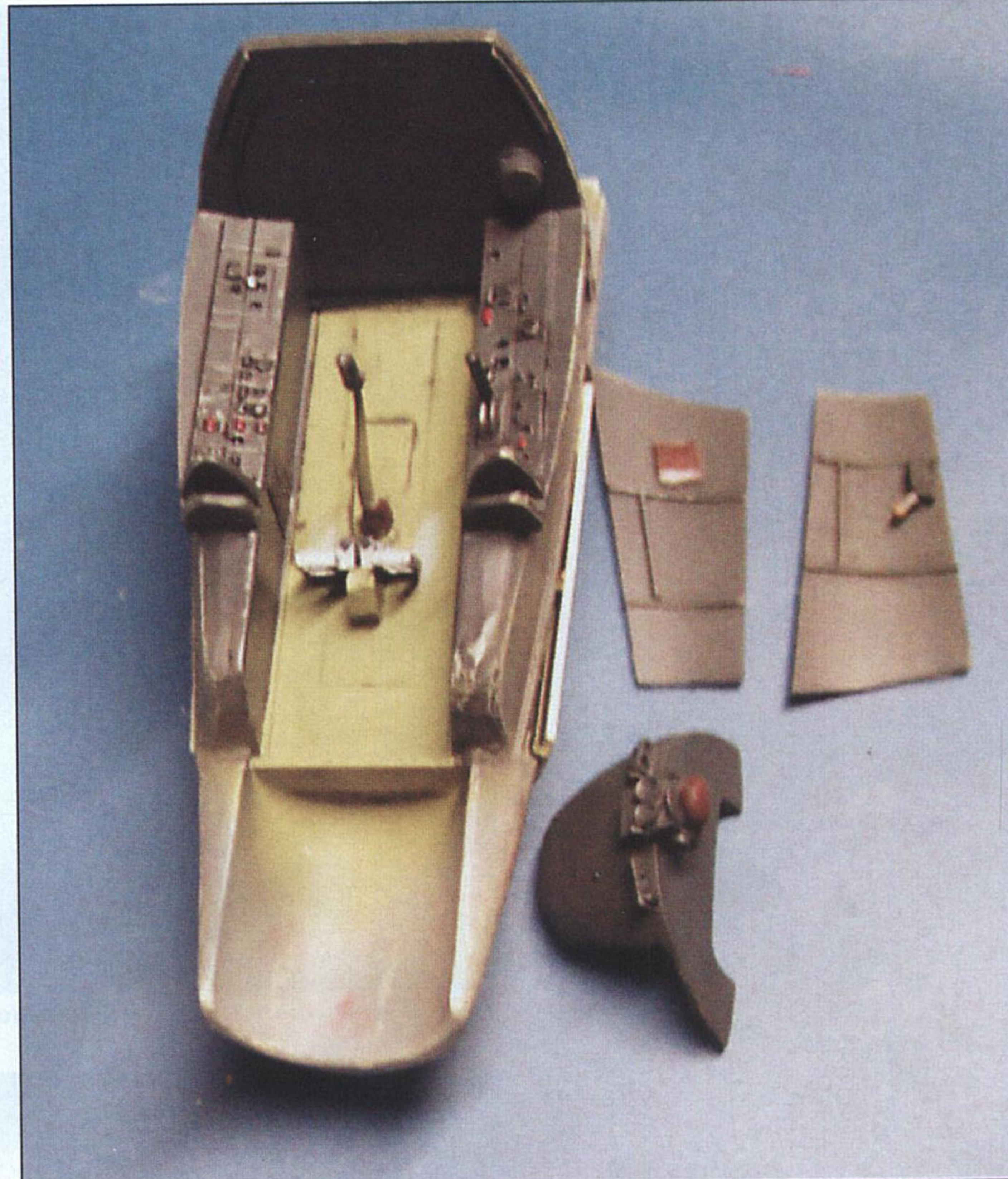
The finished instrument panel

water and household bleach. This is important, as paint will not stay on the completed model unless it is completely cleaned. As in most kits you start with the cockpit and this is made up from a resin tub combining both the cockpit, nose wheel and air brake bay. Into this you fit the resin joystick, throttle and etched brass rudder pedals. Also supplied on the brass fret but not shown in the instructions is the prominent fuse panel on the right-hand side by the pilot's feet.

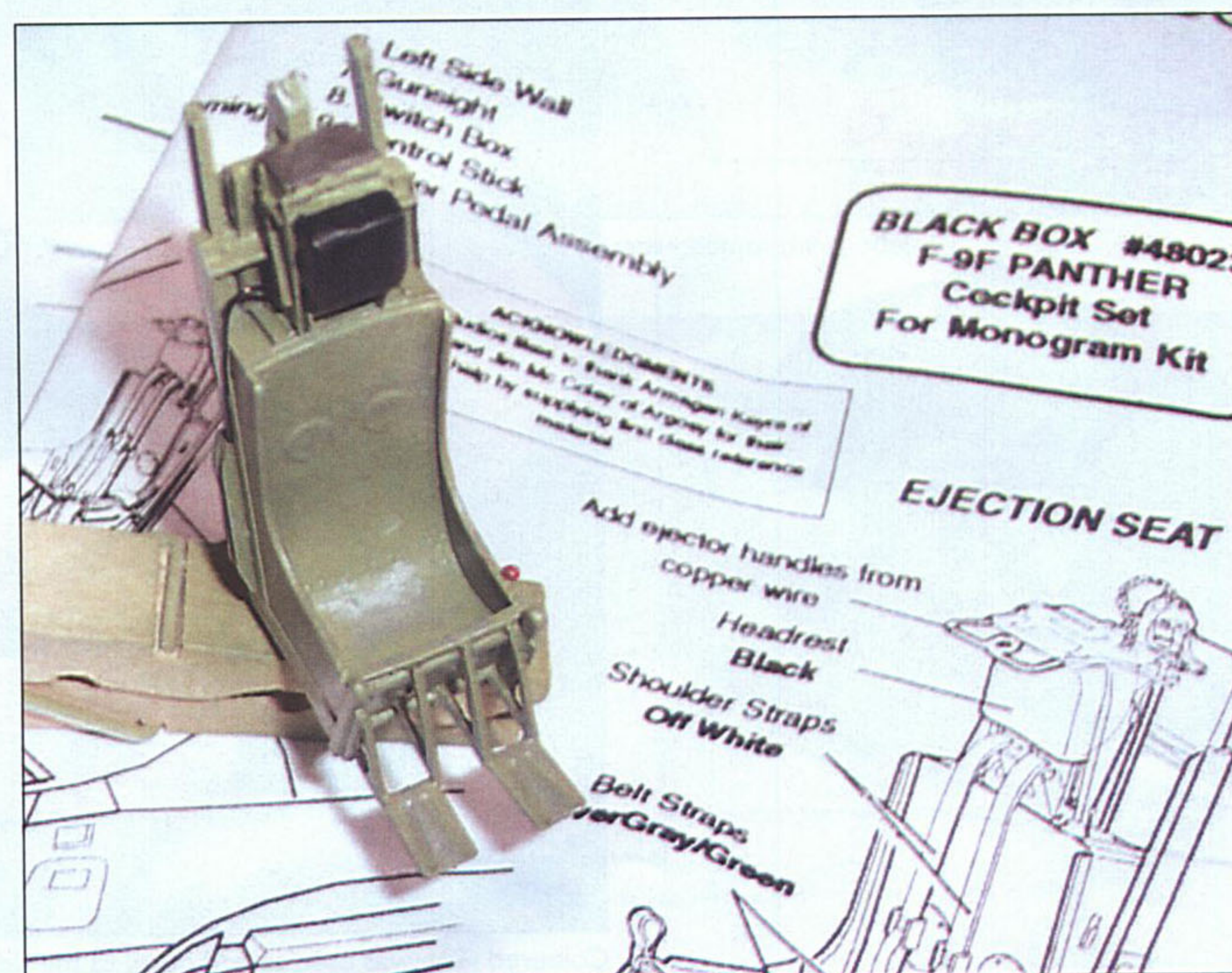
The instrument panel uses a resin coaming to which you fit an etched brass panel. A nice touch is that the instrument dials are printed on the instruction sheet and you just cut them out and sandwich them between the brass and resin parts to give a most realistic effect (the paper is slightly glossy so reflects the light

like glass). On the cockpit coaming there is neat representation of the gunsight to which I added some black wire to represent the cables visible in photographs. On the etched brass sheet you are supplied with some brass lenses but I had a hot tip I wanted to try! Confetti? In a local shop they had some confetti doves cut out from a clear plastic that changed colour from clear to green to a gold sheen. Using a hole punch I cut out two discs and glued them on for lenses. These look most striking and I will use them again to make up HUD glass on modern subjects as well as for gunsight lenses and with 200 in a pack for 99p, they are cheap as well.

The colour in the cockpit is predominantly Interior Green with black panels, but I added some depth by lightly drybrushing



The cockpit tub ready for assembly. I had yet to add the demister hose on the port side



The basic seat moulding. I used the Black Box 1/48th scale instructions as a painting guide

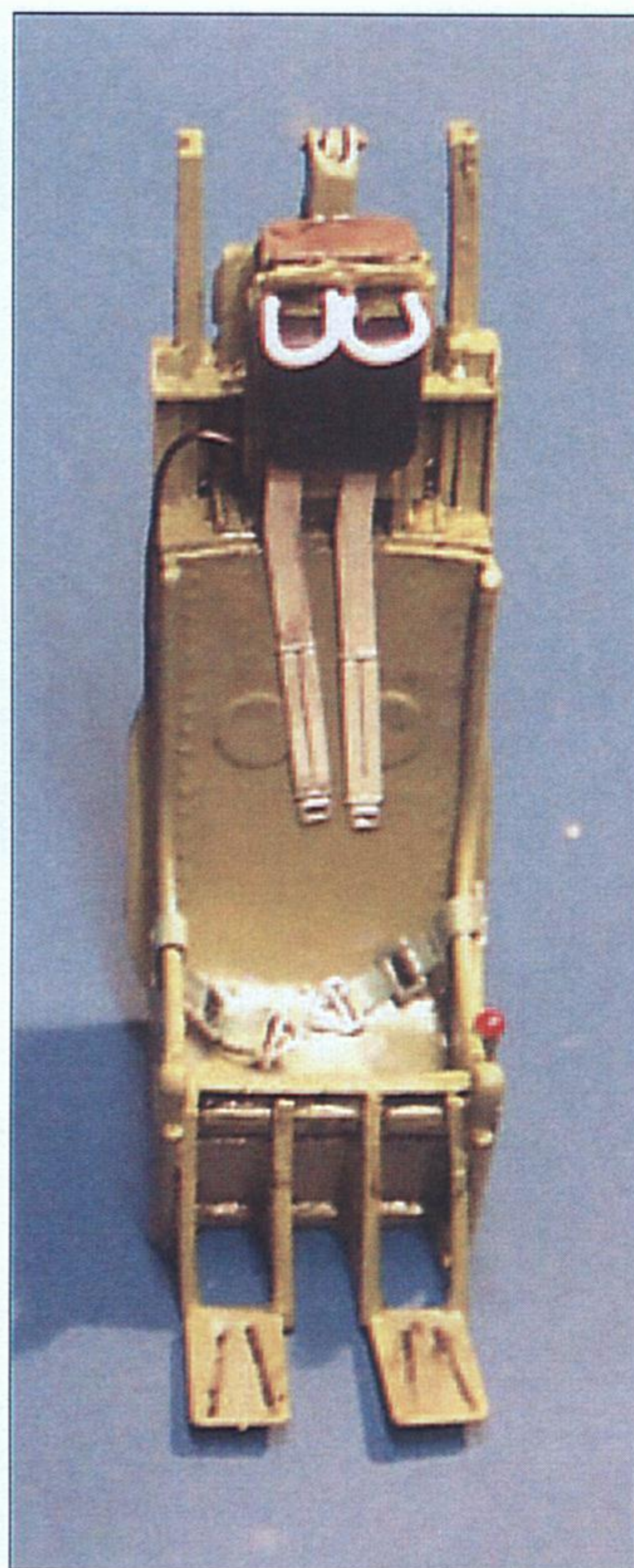
aluminium and dark grey over the raised details. To finish I closed up the cockpit by attaching the sidewalls with superglue.

The ejector seat is a jewel of a resin casting to which you add brass footrests and seat belts. I added a few extras from coloured wire including the pull handles. I also added some ejector guide rails from L-shaped plastic purchased at my local model railway shop. I also decided to add the prominent canopy defrosting tube fitted on the right-hand wall which is quite noticeable in photographs of the type. Luckily a friend donated some ribbed tubing used in detailing model truck engines which was just perfect for the job. The seat and etched brass back armour were fitted a lot later in construction to avoid any chance of damage when

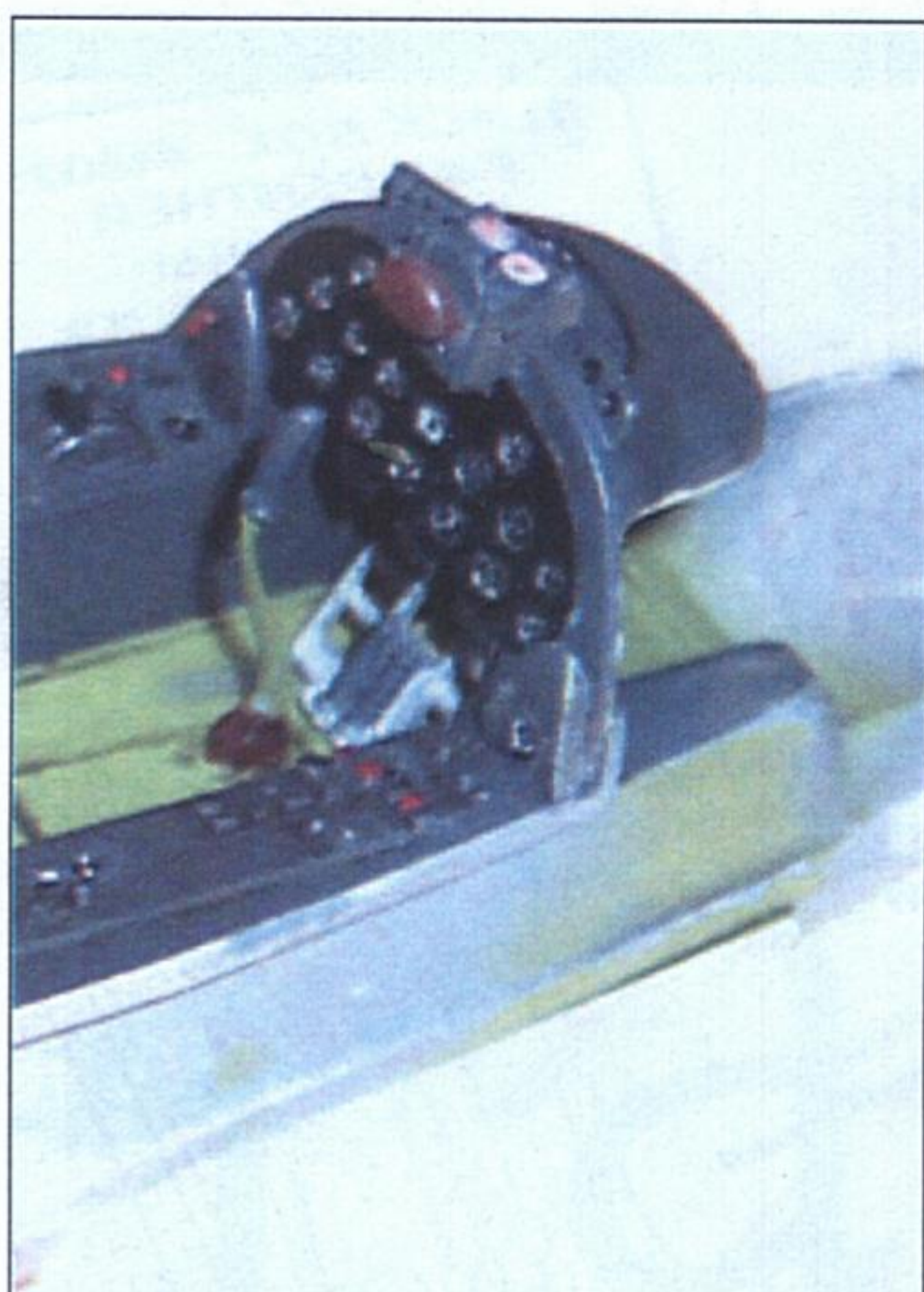
the completed tub was inserted into the fuselage through the wing hole.

I now turned the cockpit tub over and started adding some detail to the wheel well. Already moulded into this part are the sidewall braces and ammo feeds which were painted Interior green and aluminium respectively. However photos showed a lot of wiring, so to replicate this I used various gauges of coloured (black, white and gunmetal) wire. This wire was a new product brought to my model club by a car modeller which is sold for detailing engines and is available in a range of colours and thickness. It is just like coloured fuse wire and all that was needed was a small amount of superglue to hold it in place.

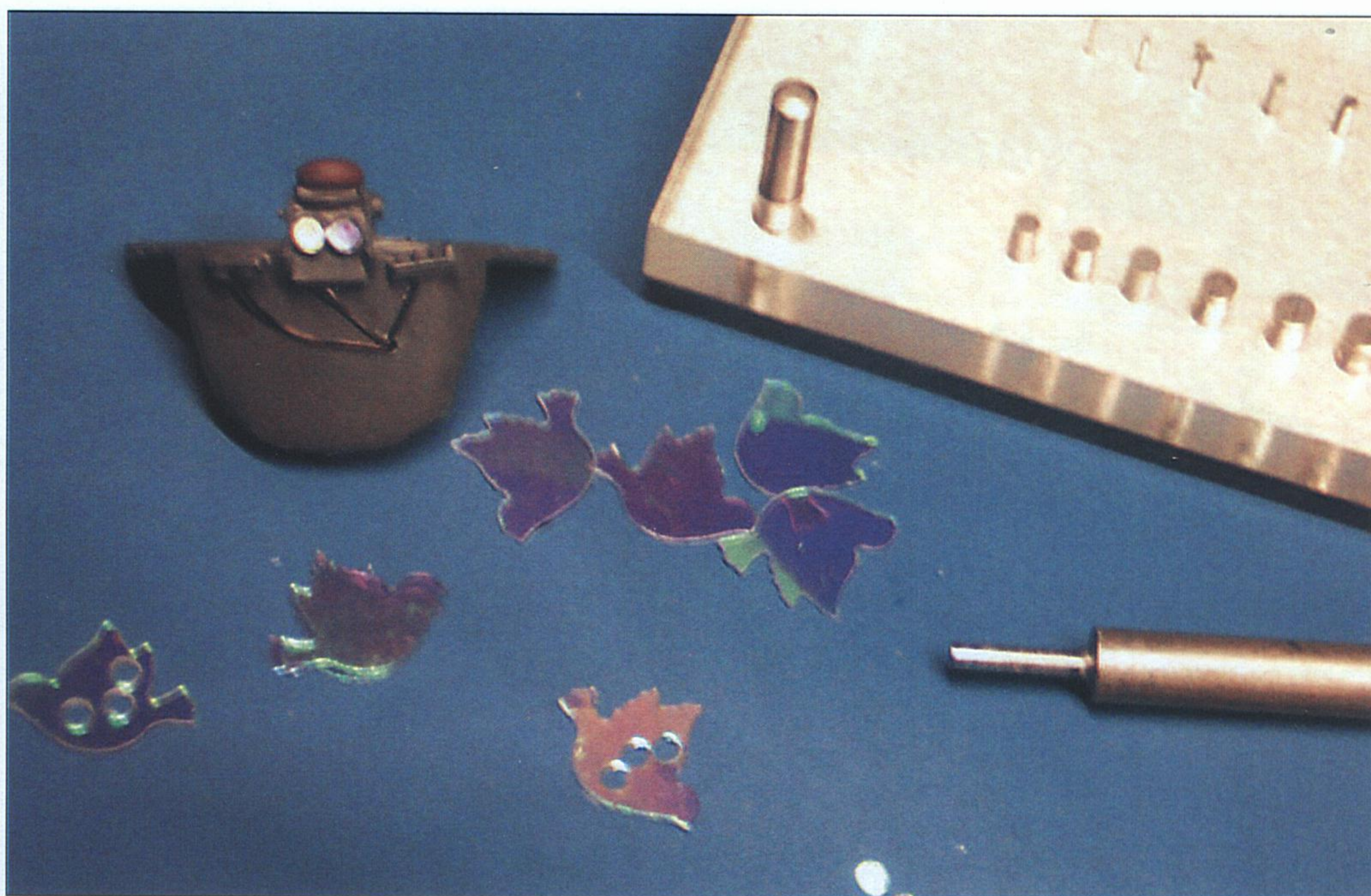
To the rear of the undercarriage bay is the red-painted air brake bay. Into this are placed three air bottles



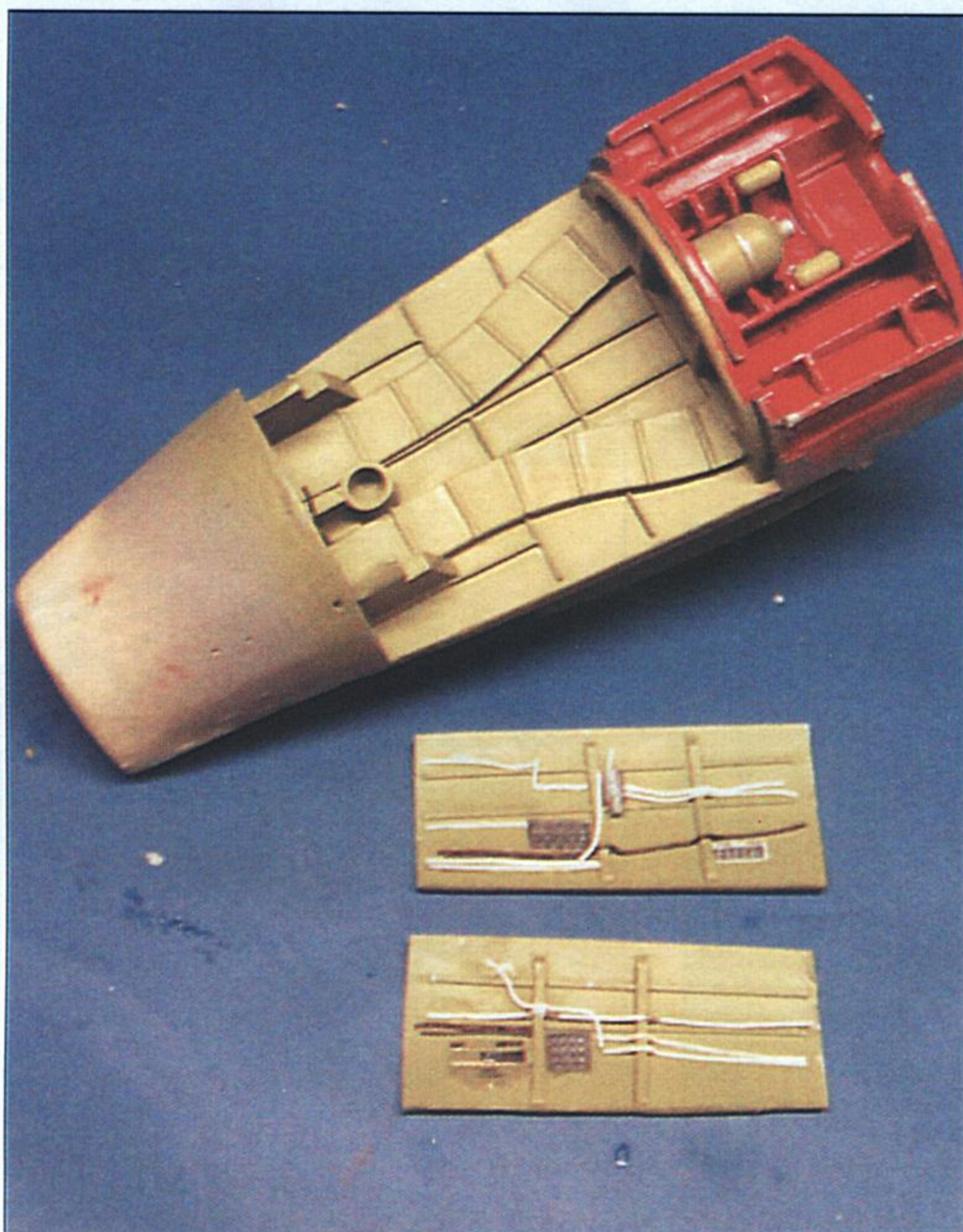
The completed seat. I replaced the brass pull handles with painted wire



The completed cockpit tub



This confetti was used to make up the lenses for the gunsight



Coloured wire was used to add detail to the sidewalls and floor of the wheel bay



Details of the undercarriage. Note that the nose wheel is poseable to add some life to the model

to which I added some more plumbing from the coloured wire. Finally I treated the whole assembly to a wash of heavily thinned black ink from Citadel miniatures to produce some shadows and lift out the detail.

The last stage in this assembly shows one of Fisher's neat engineering solutions. At the front of the cockpit is a long trough into which you place ten US pennies and this provides the nose weight. Unfortunately no English coin fits in the trough so I had to use Plasticine to hold a 1oz fishing weight instead. Once inserted into the fuselage a small amount of superglue was run around the rear edge of the cockpit to hold everything in place.

The only challenge on this kit is the wing to fuselage join. It is not too

bad, in fact in most areas it is very good, but the area in front of the wing needs some filling and this is pointed out in the instructions. Make sure you use a strong two-part epoxy on this area as on my first attempt the superglue joint opened up while I was sanding down the filler.

Now attention is turned to building a series of sub-assemblies. The first of these were the air brakes which comprise a resin interior frame and a brass speed board. The speed board has to be slightly curved to fit the frame and a Polyscale paint jar provides the correct level of curvature. It is advised that you paint these parts separately; the inner frame is red and the board is the airframe colour. A decal is supplied for the L-shaped marking painted on the outside of the airbrakes in both

black and white. If you decide to show the airbrakes retracted a separate set of closed brakes is supplied on the brass sheet.

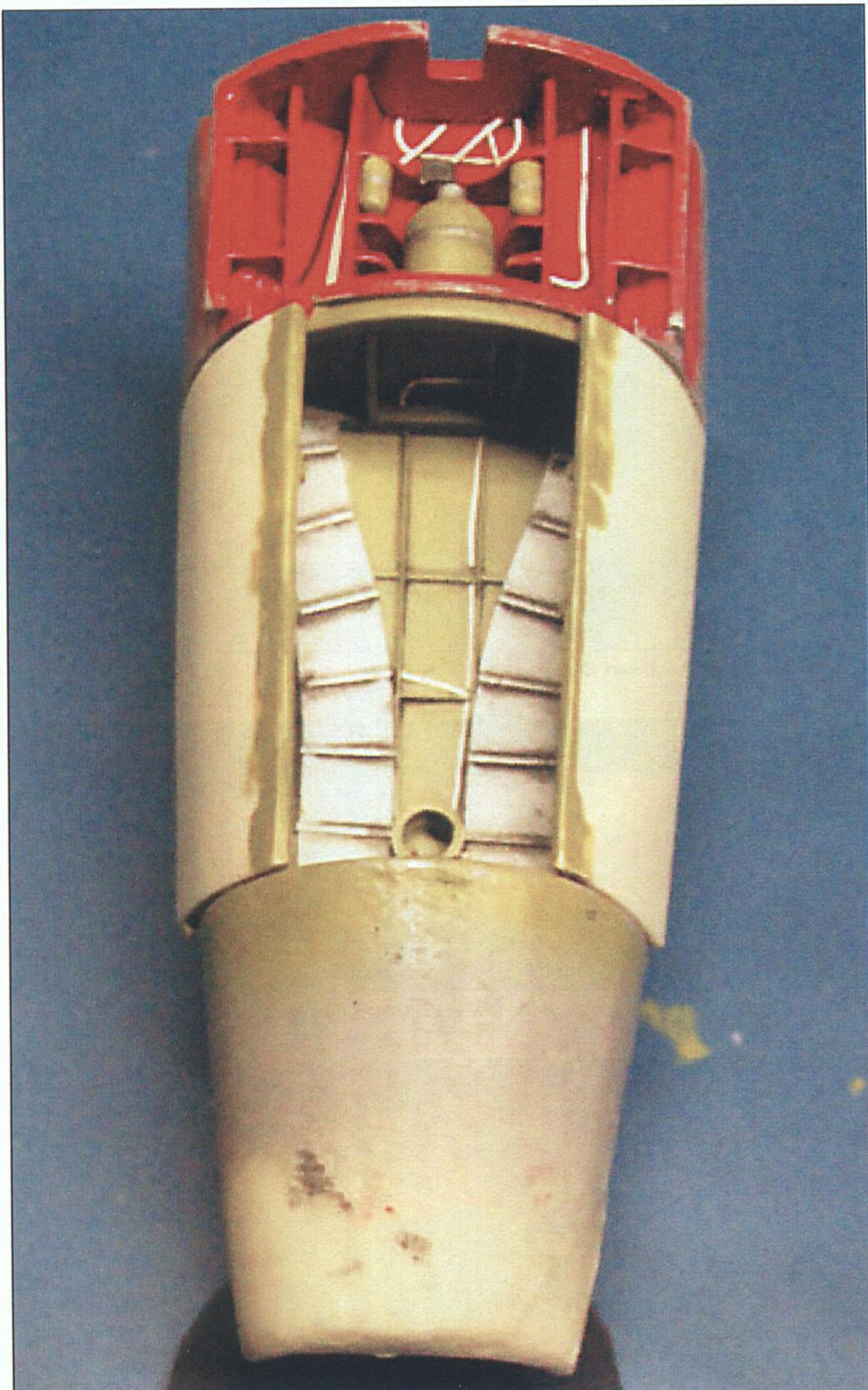
The undercarriage is another example of clever engineering, using resin on a metal core. This enabled a good level of detail while still offering enough strength to take the weight of the completed model. To the basic legs you add etched brass brake discs and tie-down chains. The tyres feature a subtle flat spot much more in keeping with their high-pressure nature than the heavily deflated look you see on some aftermarket wheels. The nose wheel's hub is supplied as a separate piece with two versions: the earlier spoked one for the blue aircraft and a later type with holes for the grey and white Marine aircraft. On my aircraft the undercarriage was

painted in Navy Blue with the chrome areas made from Bare-Metal Foil. Finally a wash of thinned black ink was again used to lift out the moulded detail.

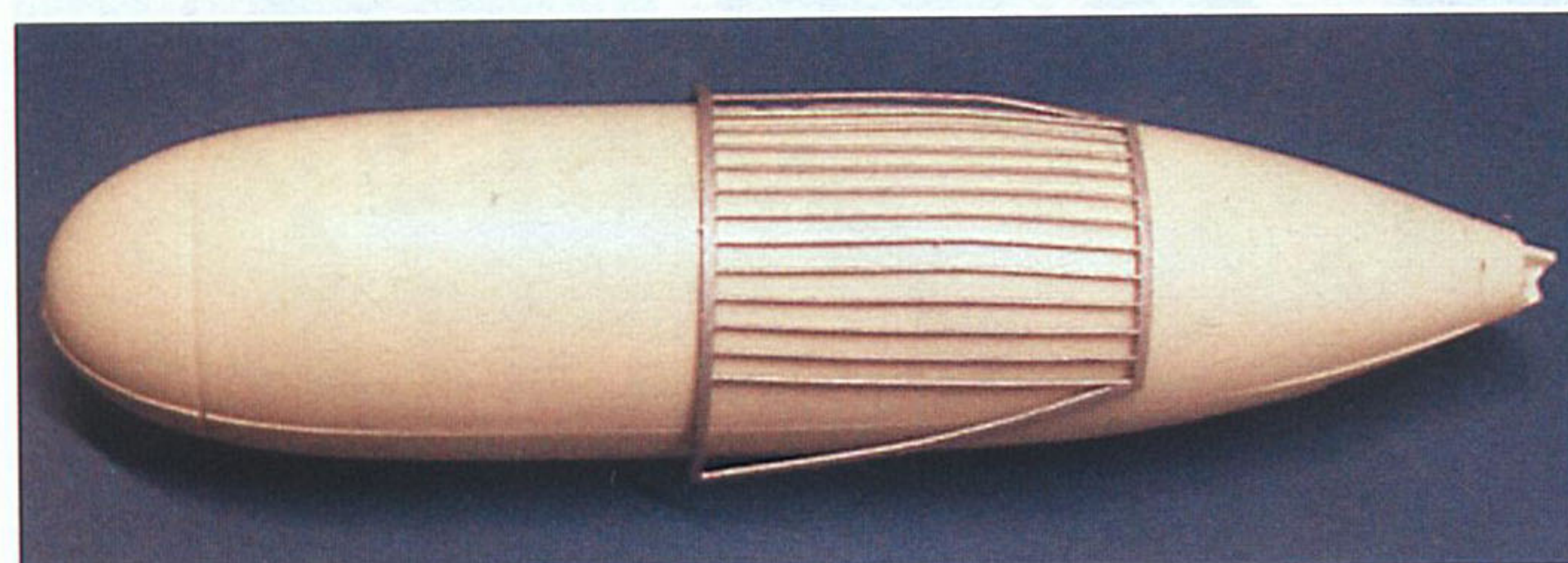
The penultimate sub-assembly to construct is the pilot's retractable entry step. This is made from a length of etched brass which is folded at right angles and a small length of plastic strip is then glued to the shorter arm to make the steps cover.

I made this up and promptly put it aside for safe attachment once the model was finished and to date I have not seen it again so it is missing on my completed model!

The last sub-assembly was the one I thought would be the hardest. The rear canopy deck is supplied as a resin part and to this I had already added some tubing to represent the rest of the canopy demister system.



The completed underside of the tub



After a stiff drink, folding the aerial that fits under the cockpit canopy

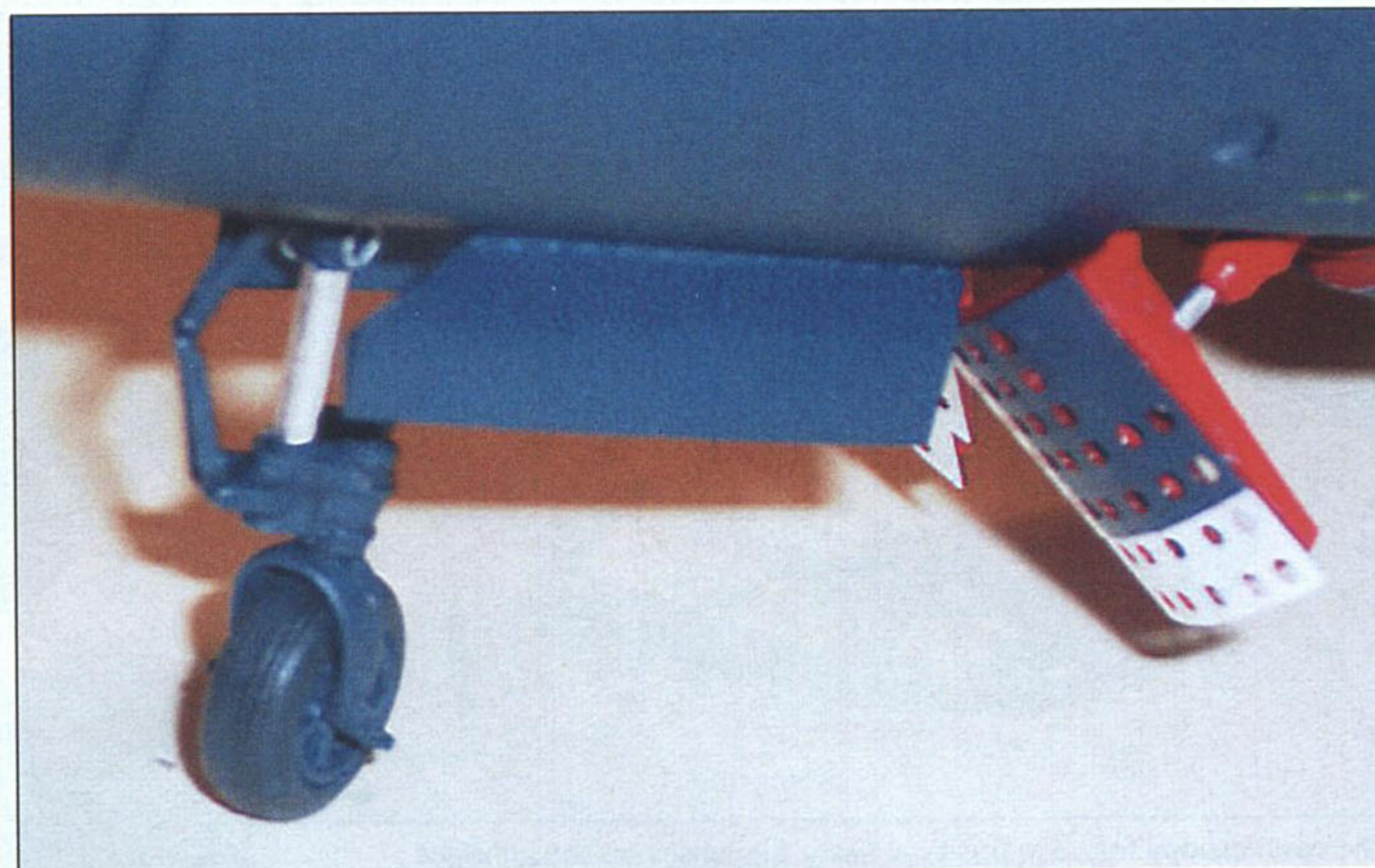
But you also have to fit a large radio antenna that has to be curved from the brass sheet to the same angles as the cockpit canopy. Once again Fisher have produced an easy answer. The brass I folded over one of the resin tip tanks, which, either by design or lucky, coincidence exactly with the curvature of the canopy. All I can say is take it slow and steady and you will have no problems with this area.

All the sub-assemblies were now attached to the model along with the dropped flaps, two-piece tailplane assembly and the wing-tip tanks.

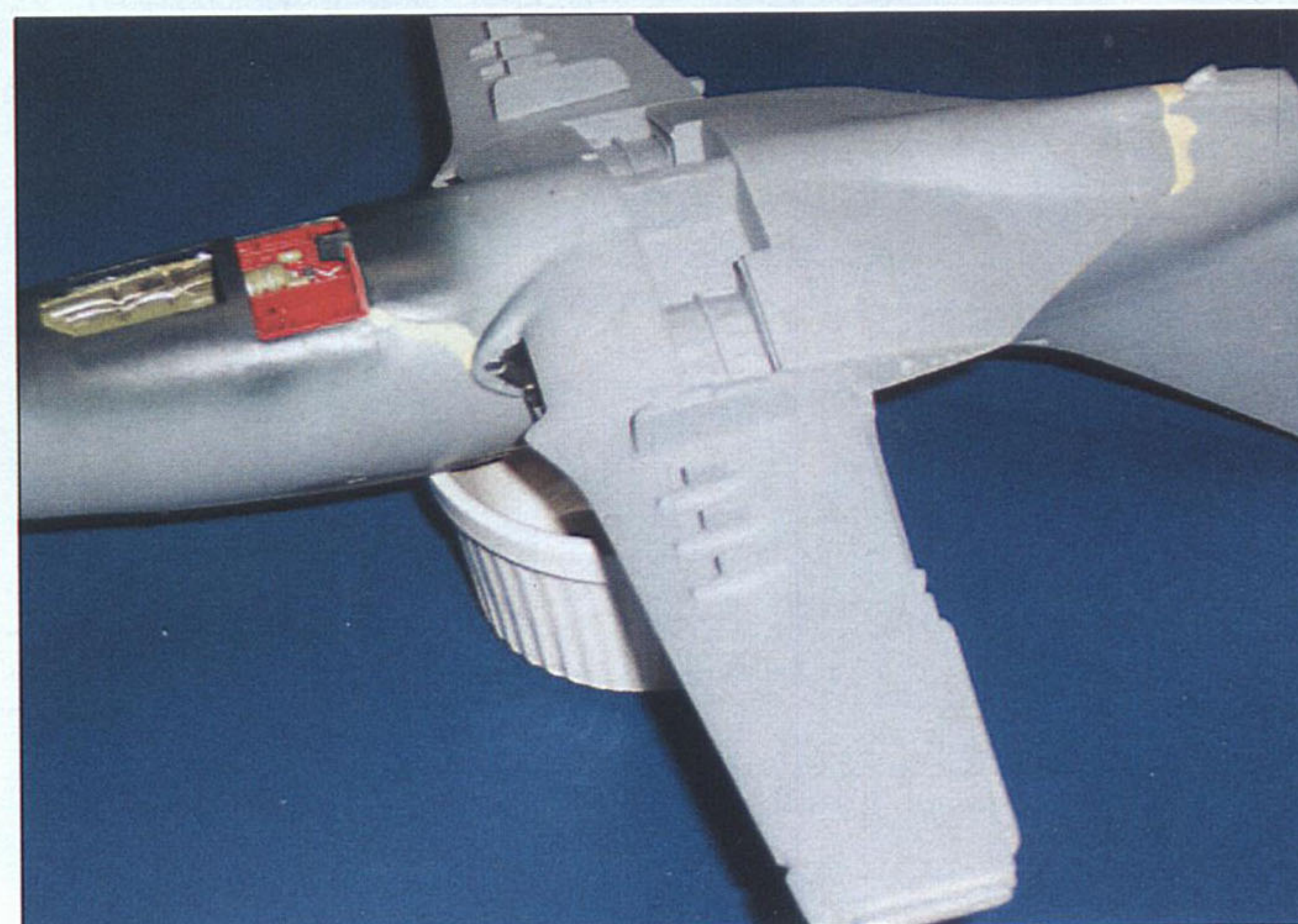
I was now on the home stretch and about to tackle a make or break area on the model, the canopy.

There are a number of different options for canopy assembly; the easiest is to use the two-part clear resin canopies which have the

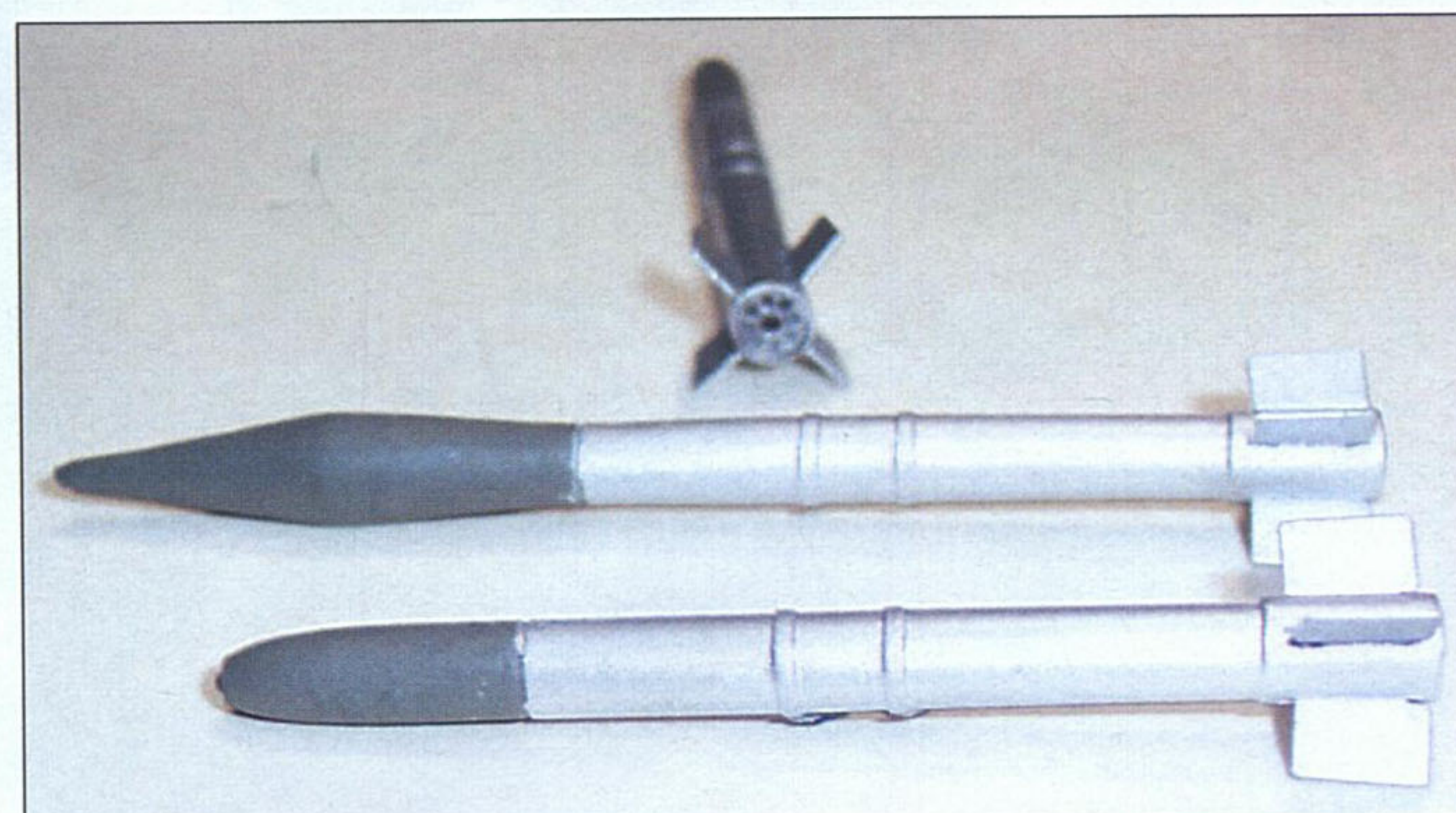
canopy frame lines moulded in. These are as clear as most injected moulded examples, but could be improved further with a dip in Johnsons Klear floor polish. For the more advanced you have a separate inner frame in resin over which you place a vac-formed canopy. This is the option I went for, as I wanted to show the cockpit open. You get three vac-formed canopies in the kit so using a pair of sharp nail scissors I carefully cut the canopy away from its backing sheet. In my case I used all three to get one good canopy but it was reassuring to know that I still had the resin version if I completely mucked up this stage. I used PVA glue to attach the canopy to the pre-painted frame and also to attach the rearview mirror that was supplied on the brass sheet. I also used PVA to attach the completed assembly to



The air brakes and nose leg fitted to the model



This is the only filler used during the entire construction of the model



The two sizes of rockets provided in the kit

the model and a number of applications were put on over two days to insure that the joint lines on the forward canopies were completely filled. To make a set of paint masks for the canopy I used the resin version as a template on to which I applied some Tamiya masking tape. This was rubbed in to the raised frame detail with a cotton bud before I carefully cut around the frames with a new scalpel blade. Using needle nosed tweezers I carefully removed my masks from the resin being careful not to stretch them. A few attempts later I had a complete set of masks that were applied to the vac-form canopy ready for painting.

The final parts added prior to the main painting were the underwing store pylons. There is a choice here between six rocket pylons or six

bomb racks on the outer stations combined with a larger Mk 51 bomb rack on the inner station. Using period photographs of my subject I decided to use just the rocket pylons on my model.

With all the main assembly completed it was now time to think about applying the paint scheme and decals.

Painting

From the three colour options supplied in the kit I had no doubt mine would be in the classic Sea Blue with metal trim that I have always associated with the Panther.

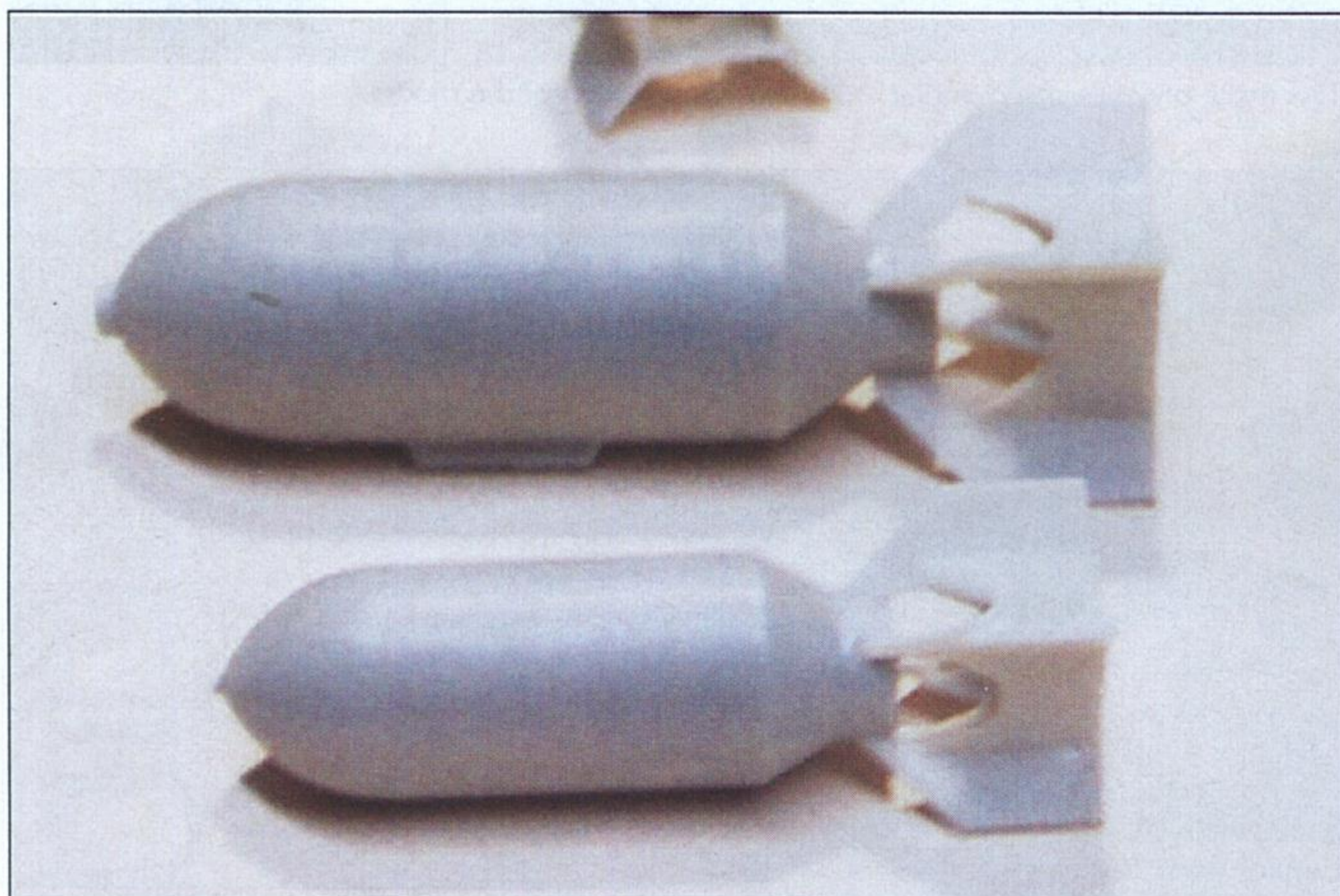
The first job was to mask off all the open areas such as the cockpit and wheel bays. For this I used a mixture of Silly Putty and wet kitchen towel. I applied a coat of Halfords Grey Primer to check that



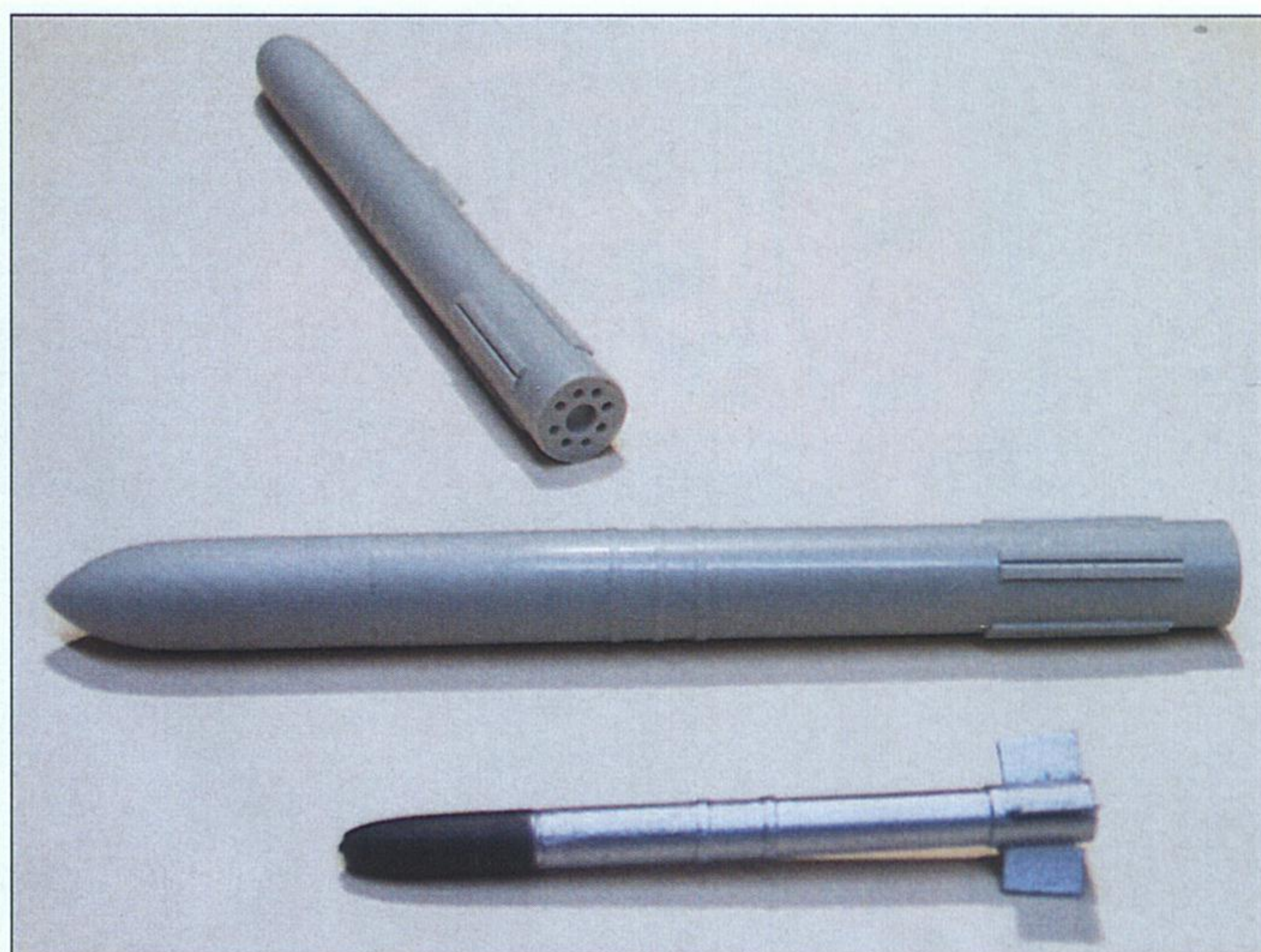
The resin canopy frame in position. Note the lenses on the gunsight



Tamiya tape was used to mask off the Alclad II before airbrushing the overall Sea Blue



The 250lb and 500lb bombs



The massive Tiny Tims dwarf the 5 inch HVAR



The seam on the fuel tanks is one of the few areas that you have to clean up before assembly



The three-part airbrake assemblies are ready for construction

all my joints were invisible and the leading edge of the wing and the top of the inner wing were rubbed down with Micromesh until the primer took on a glossy appearance. This is important as the metal areas were being applied using Alclad II and this will show up any imperfection on the primer underneath. The metal areas were air brushed in several light coats using Alclad II Aluminium for the wing leading edges and Alclad II Magnesium for the inner panels. The aluminium was also applied to areas of wear around the cockpit and footsteps and to the wing fences, which at this stage were still on the etched brass sheet to prevent damage while handling the model.

The white trim on the tips of the tail surfaces was applied using Humbrol white before both this and

the natural metal areas were masked in preparation for the overall colour. For the Sea Blue I used Polyscale acrylic. This was thinned 60/40 with distilled water. My main reason for using this paint is that it is easy to do any touching-up straight from the jar using a paint brush because it will dry to the same shade as the airbrushed paint.

The masking was now removed and the whole model was given several light coats of Polyscale gloss varnish in preparation for decaling. Once the decaling was finished I applied several more light coats of Polyscale varnish to seal in the decals and to produce a not overly-glossy look to the model that I feel matches the photographs of real thing in service.

After all the final details were added a small amount of weathering

was added. I used a toothpick to chip away the paint on areas of wear to reveal the Alclad II Aluminium previously applied. A wash was applied to the major panel lines and finally Mig Productions weathering powders were used to produce the gun smoke around the cannon and the dust on the tyres.

Decals

The decals are supplied on three sheets. The first is the stencil sheet and this has a full set of factory-applied stencils in both black and white plus the markings for the speed brakes and a section of white stripes to make up the edging around the canopy frame. The other two sheets supply the markings for three individual aircraft options as follows.

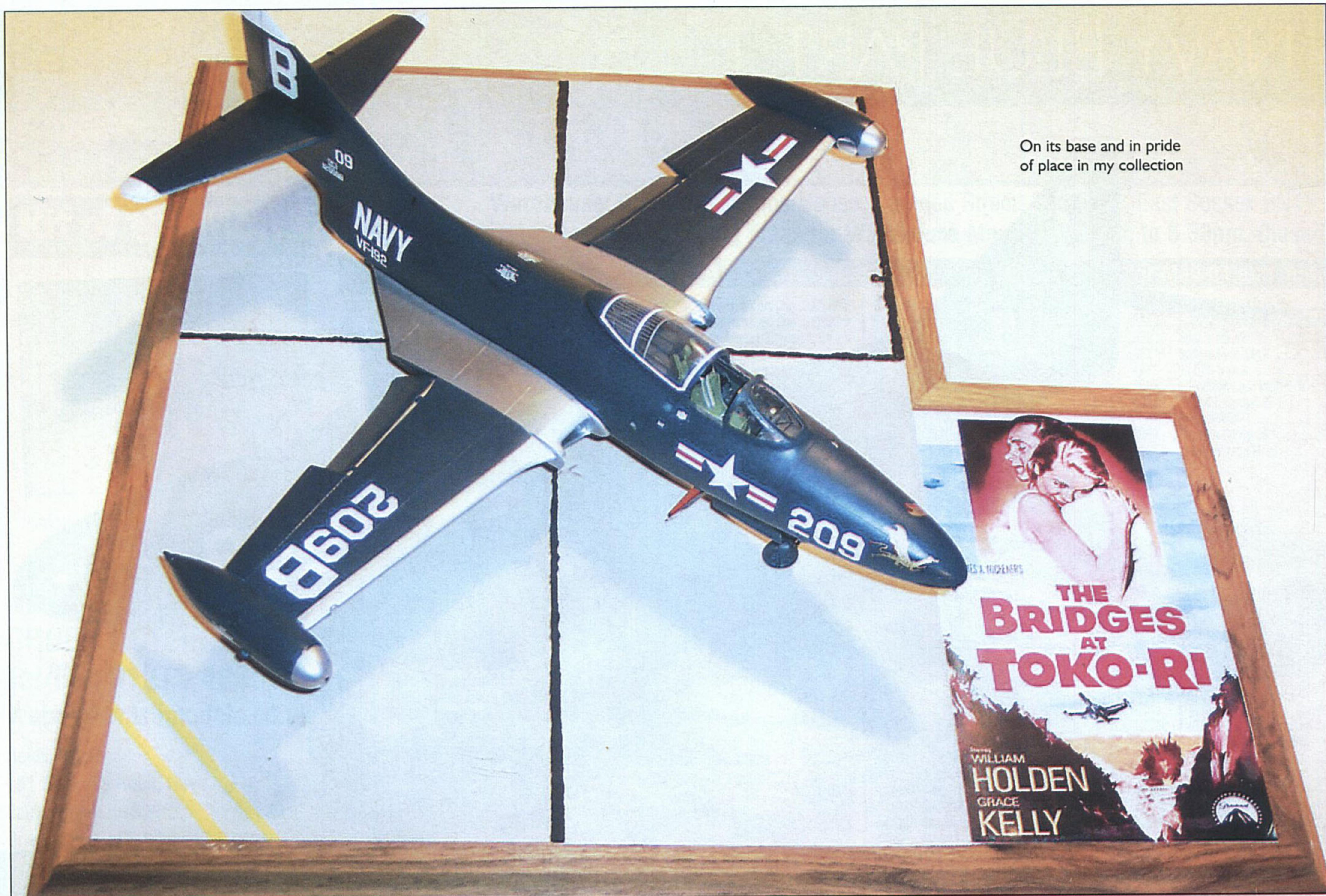
- 1. Solo ship number 5 from the

Blue Angels aerobatic team painted in Blue Angels Blue with high-gloss metal trim.

- 2. 'Black 12' from VMA 223 Bulldogs USMC in Gull Grey and white with red trim and red lightning bolts on the tail and tip tanks.

- 3. 'White 206' from VF 192 Golden Dragons in Sea Blue with white trim and natural metal inner wings and leading edges. During a tour on the USS Oriskany this squadron's aircraft were used during the filming of the 'Bridges of Toko Ri'. This aircraft featured the fictional character Lt Brubaker's name under the cockpit on both sides.

In one of my references there were pictures of 'White 206' without the character's name and it was also noticeable that very little of the



On its base and in pride of place in my collection



The clean lines of the Panther are shown to good effect in this photo

factory-applied stencils were visible.

The decals were equal to the best aftermarket sheets available, even the smallest print on the stencils is readable under magnification and the Golden Dragon on the nose is a little work of art in itself.

I used Micro Sol and Set with no problems but would advise that the decals are very thin and do not like a lot of handling, so use plenty of wetting agent to move them into position.

Final Touches

The prominent wing fences are one of the identifying features of a late mark Panther; three of these are supplied on the brass sheet and I had left their attachment until now just in case of damage. Once cut from the sheet a small amount of superglue was applied to the inner

edge with a pin, then they were just slipped into location on the wing fold line.

On the port tip tank there is a highly polished circular panel that is used as a mirror to enable the pilot to visually check the position of the undercarriage. A disc 10mm in circumference was cut from a sheet of Chrome Bare-Metal Foil to replicate this mirror and then it was burnished into place with cotton bud.

The glazing for the two landing lights is supplied on a small vac-formed sheet. These covers are quite small and tricky to cut and I wished they had been supplied in clear resin rather than as a vac-form. Once I had a pair trimmed out I positioned them in place using PVA as an adhesive. The landing light on the right wing is

right next to the wing fence and in hindsight it would have been a lot easier to fix that one in place before I had glued the wing fences. The navigation lights on the wing tanks and under the fuselage are supplied on a little clear resin sheet. Once these were applied to the model I tinted them with Tamiya Clear Red and Clear Blue. Again there are a few spares just in case you drop or dislodge any.

For the under-wing stores you are provided with a very comprehensive choice from the following:

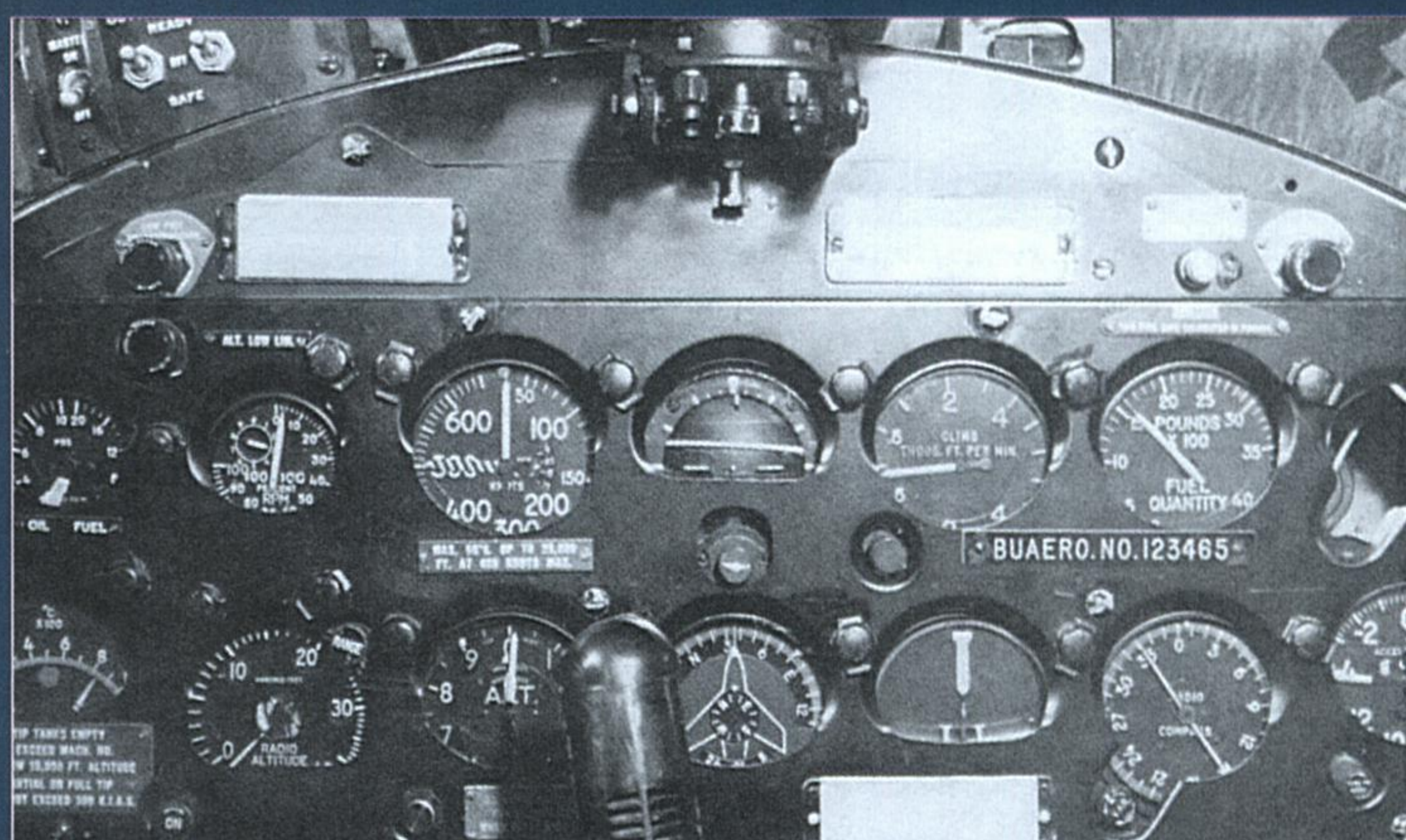
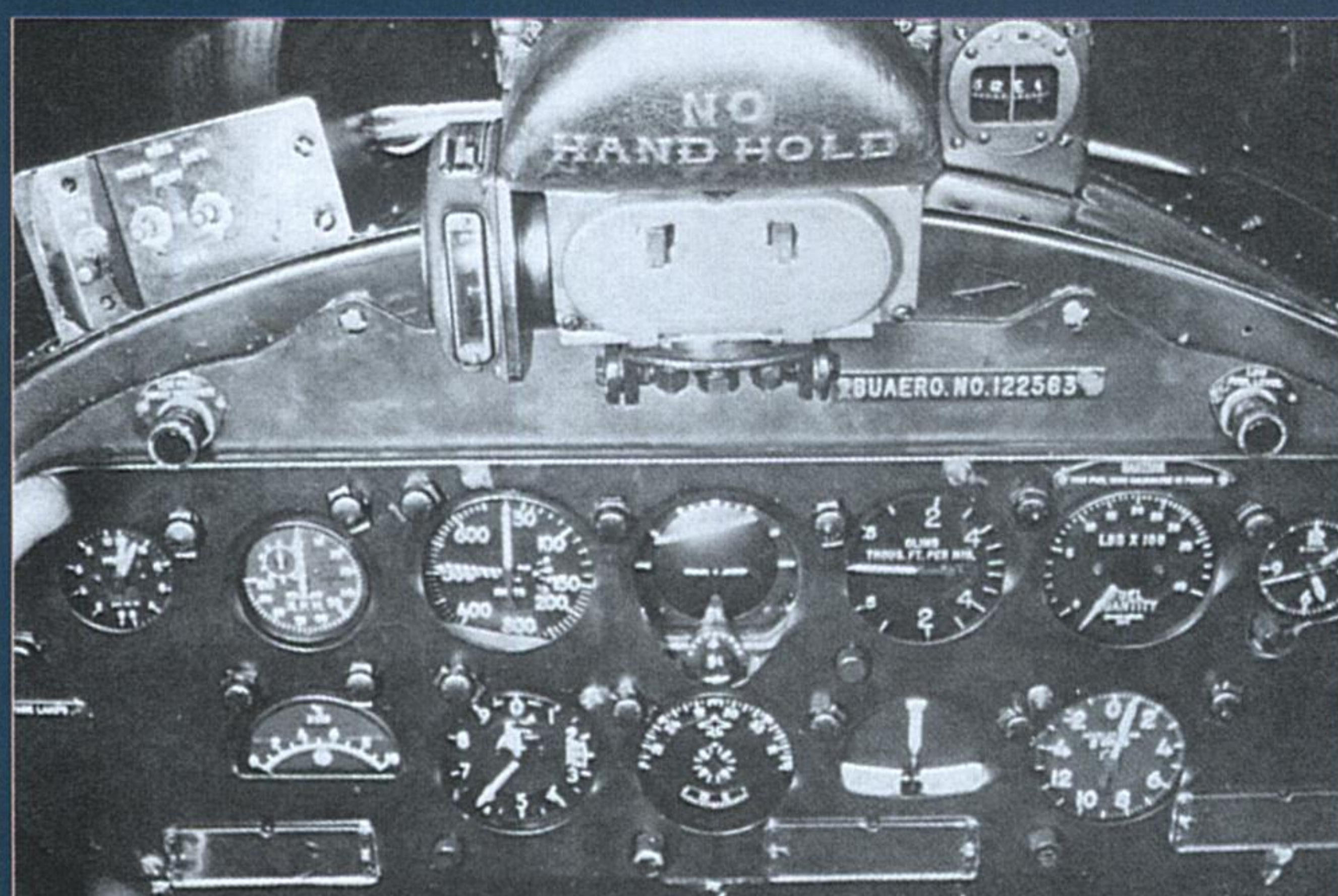
- 250lb and 500lb bombs. These are both supplied as two pieces, no cleaning up is required and the boxed tail fins are some of the thinnest resin castings I have ever seen.
- 5 inch HVAR rockets. These are made up from a resin centre body,

which did require a small amount of cleaning up to remove a mould mark from the top surface. To the body you attach four brass fins. Once again six spare fins are supplied on the brass sheet in case of mishap.

• 6.5 inch RAM rockets. These are the first time I have seen these supplied in a kit. Based on the body of 5 inch HVAR these feature a larger warhead and were carried as part of a mixed load for tank busting. In the kit you remove the head on the smaller rockets and replace with them with a larger warhead.

• 11.75inch Tiny Tim. This is a massive rocket but I could only find one photograph of it being carried on the inner bomb pylon on a Panther. Again they are supplied as a resin body to which you attach four

NAVY BLUE PART I



brass fins and once again a set of spare fins is also supplied.

All of these are works of art, especially the rockets which include ejector port detail rather than the normal flat area at the rear. I did assemble four HVAR and two RAM rockets, but once I had placed them on my model I decided they detracted from the pure lines of the aircraft. However they are now destined for use on a Trumpeter F4U-4 Corsair. In fact these weapons are so good they could be sold on their own as a weapons set to improve any American WWII or Korean War subject.

Display

The last stage of my 'build' was to make up a base to display the completed model on. I obtained a teak wood base from another club

member and stained it with teak oil. I then sprayed some plastic sheet with Halfords Ford Beige car paint and after matting down with Polyscale varnish this was cut up into squares to represent concrete sections. I attached this to the wooden base with double-sided sticky tape, and then the gaps in between the panels were filled with Mr Hobby dissolved putty. Once dry this was painted with Revell Anthracite (9). I scratched a few ragged lines into the plasticard surface with a plastic scribe and filled these carefully with an ink wash to represent cracks in the concrete. To finish the base I found an example of the original 'Bridges of Toko Ri' film poster from 1955. This was printed onto glossy photographic paper and attached to the base.

Conclusion

I think this is one of my best-ever models and this was mainly due to the quality of the kit parts which needing only care in assembly to make a show-stopper. Resin kits are never going to be cheap but neither are large plastic kits and if you add the amount you would spend on brass and resin accessories and an aftermarket decal sheet you would be spending the same amount as this kit costs.

I cannot praise it highly enough and I am looking forward to the Cougar that should be available by the time you read this. I certainly hope that sales are good enough for Fisher to look at other subjects from this neglected period of aviation history in 1/32nd scale.

David Francis

Sources

- The Fisher Panther currently costs \$145 US plus postage. It is only available direct from Fisher Model and Pattern, 5290 Buckboard Lane, Paradise, California, 95969 or www.fishermodels.com
- The coloured wire used during construction was purchased from www.little-cars.co.uk
- Dissolved Putty and Mr Surfer products are available from Model Design Construction, Victoria Place, Victoria Road, Ripley, Derbyshire. DE5 4FW Tel/Fax: 01773 513345 Email: models@ModelDesignConstruction.com

References

An essential reference is in Steve Ginter's Naval Fighters No.59, Panther Volume 1. This has many close-up and detail shots ideal for the modeller. Volume 2 and 3 of this title and the Squadron Panther in Action book are also recommended for those looking for some colourful alternatives to the kit's markings.

Thanks

To George Coote, Philip Ware and Dave Scott and finally John in Texas who supplied some useful colour shots while I was researching this article.

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Spitfire Mk Vb

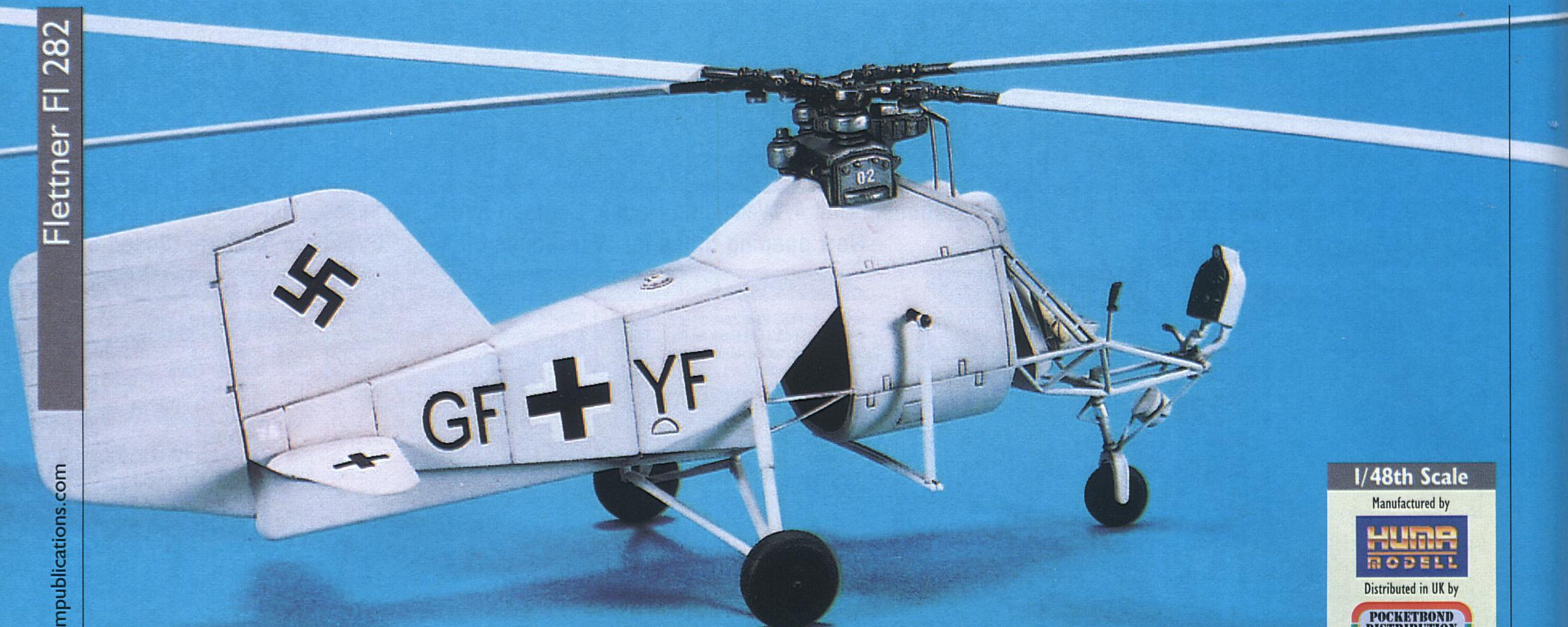
Detail set

1/72 SCALE



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Luftwaffe Hummingbird

by Randy Lutz

The Flettner Fl 282 first appeared in 1940 as a direct development of the Fl 265. The Fl 265 was the first helicopter to employ the principle of counter-rotating, intermeshing rotor blades as early as 1938. The machine possessed excellent flying characteristics and the German Air Ministry placed a development order with Flettner for a specific type of spotter aircraft. Even though the same method of propulsion was retained in the Fl 282, its engine was moved to a central position directly under the rotor head. As a result, the plane had a very stable flying attitude (central centre of gravity), and the pilot had very good all-round vision. Following completion, the Fl 282 was thoroughly tested both in the Baltic and the Mediterranean. Take-offs and landings were practiced from ships (mine layers and destroyers) under steam, to which special 5 x 5 metre landing decks had been fitted. As a result of the excellent test results,



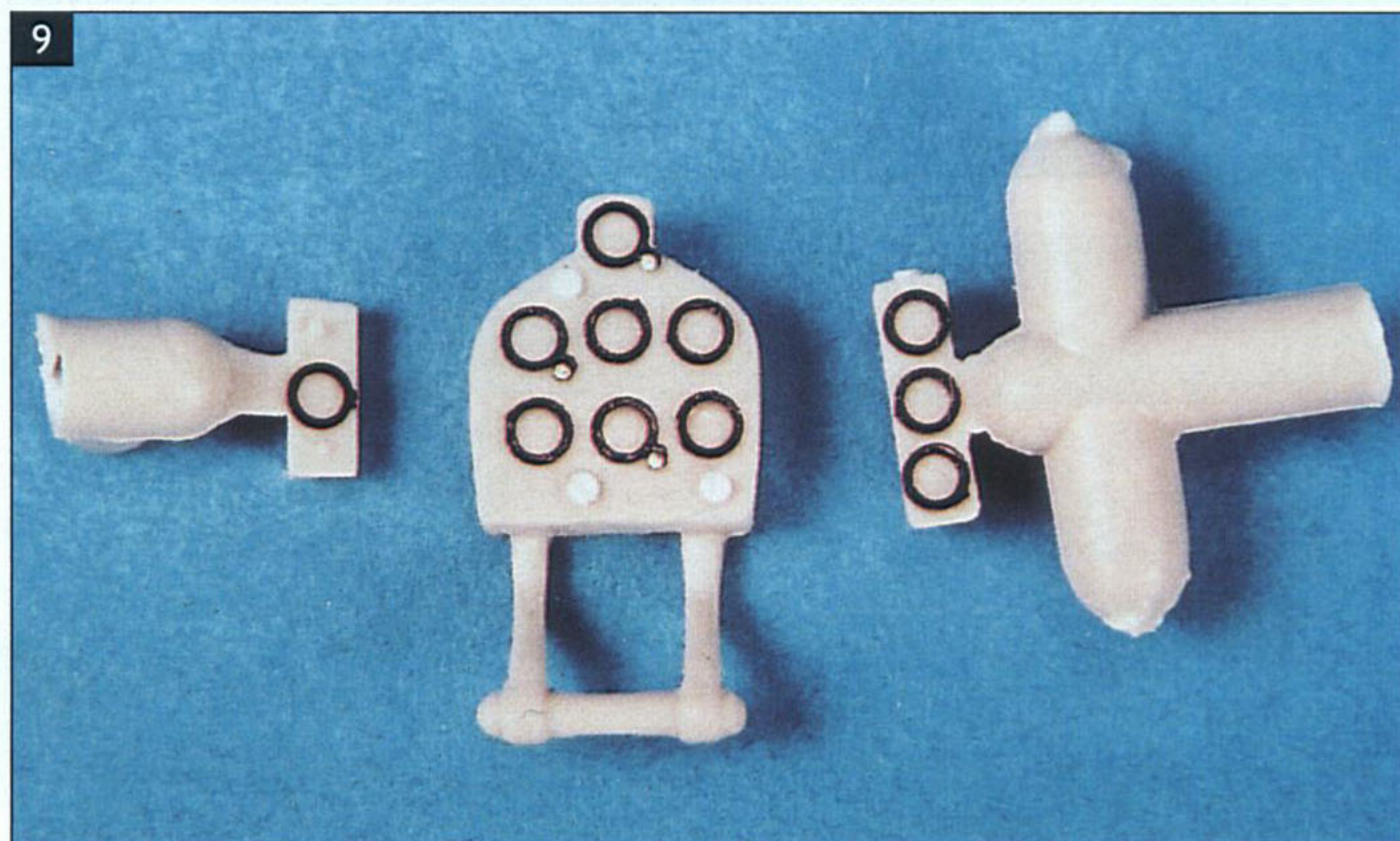
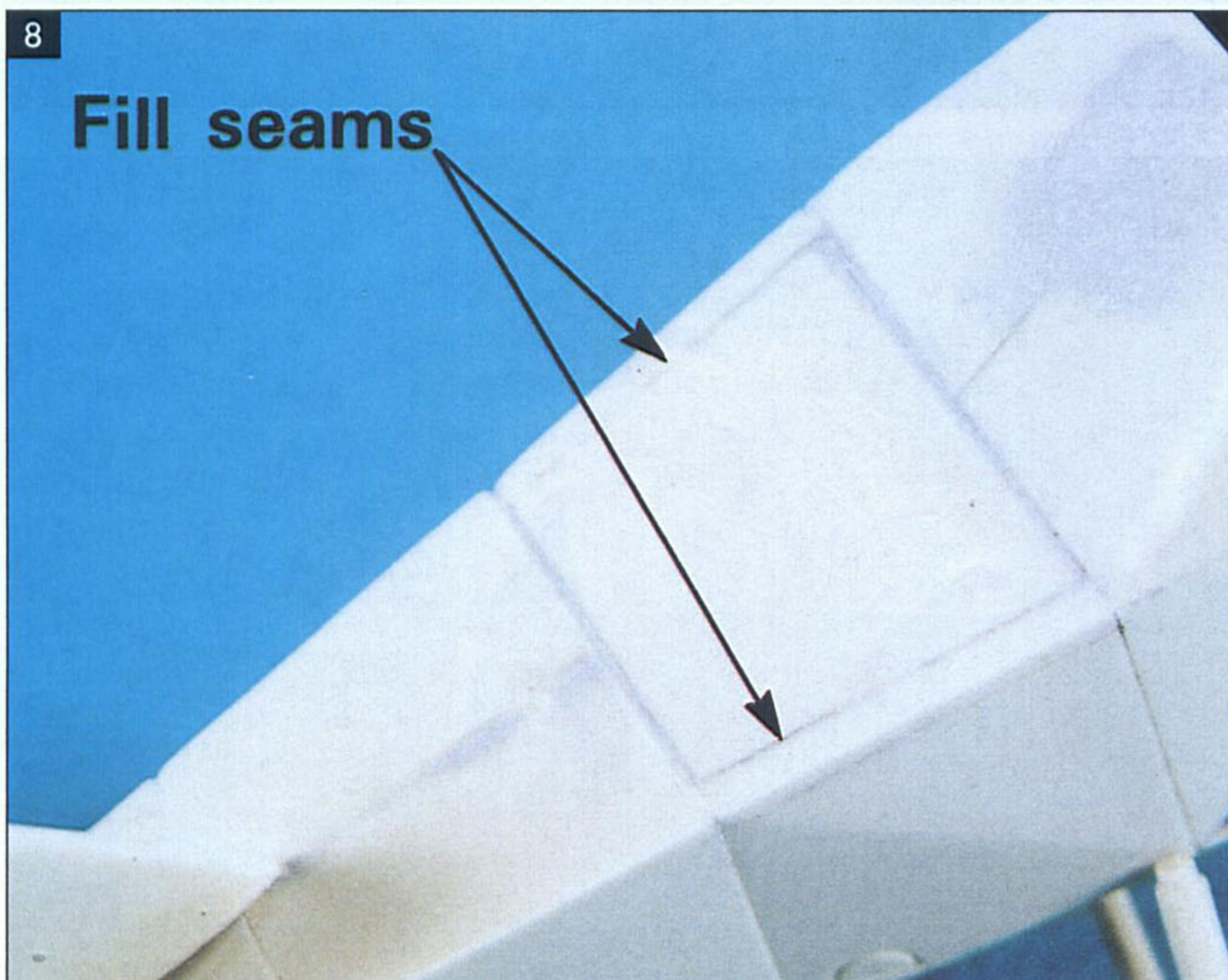
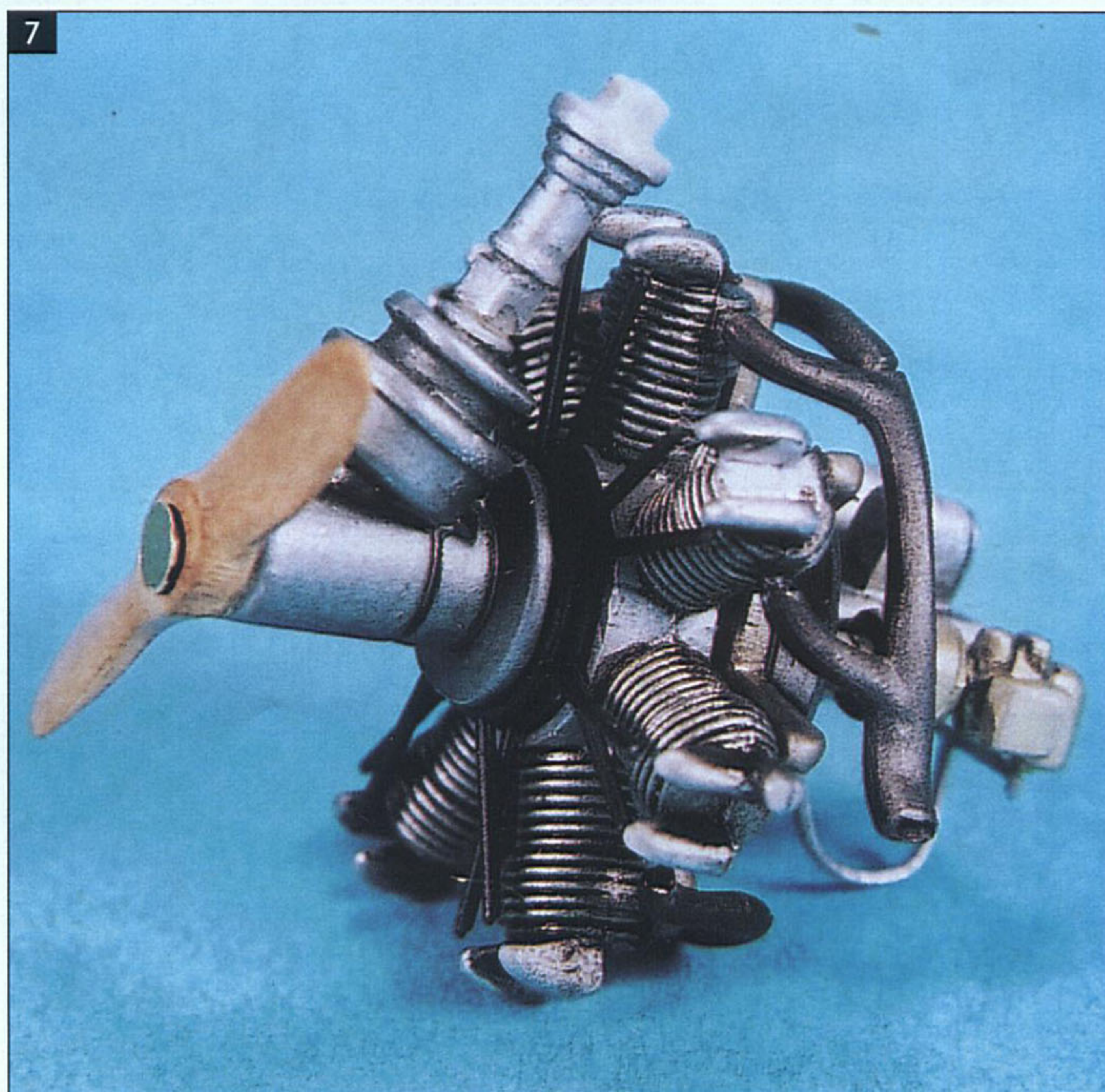
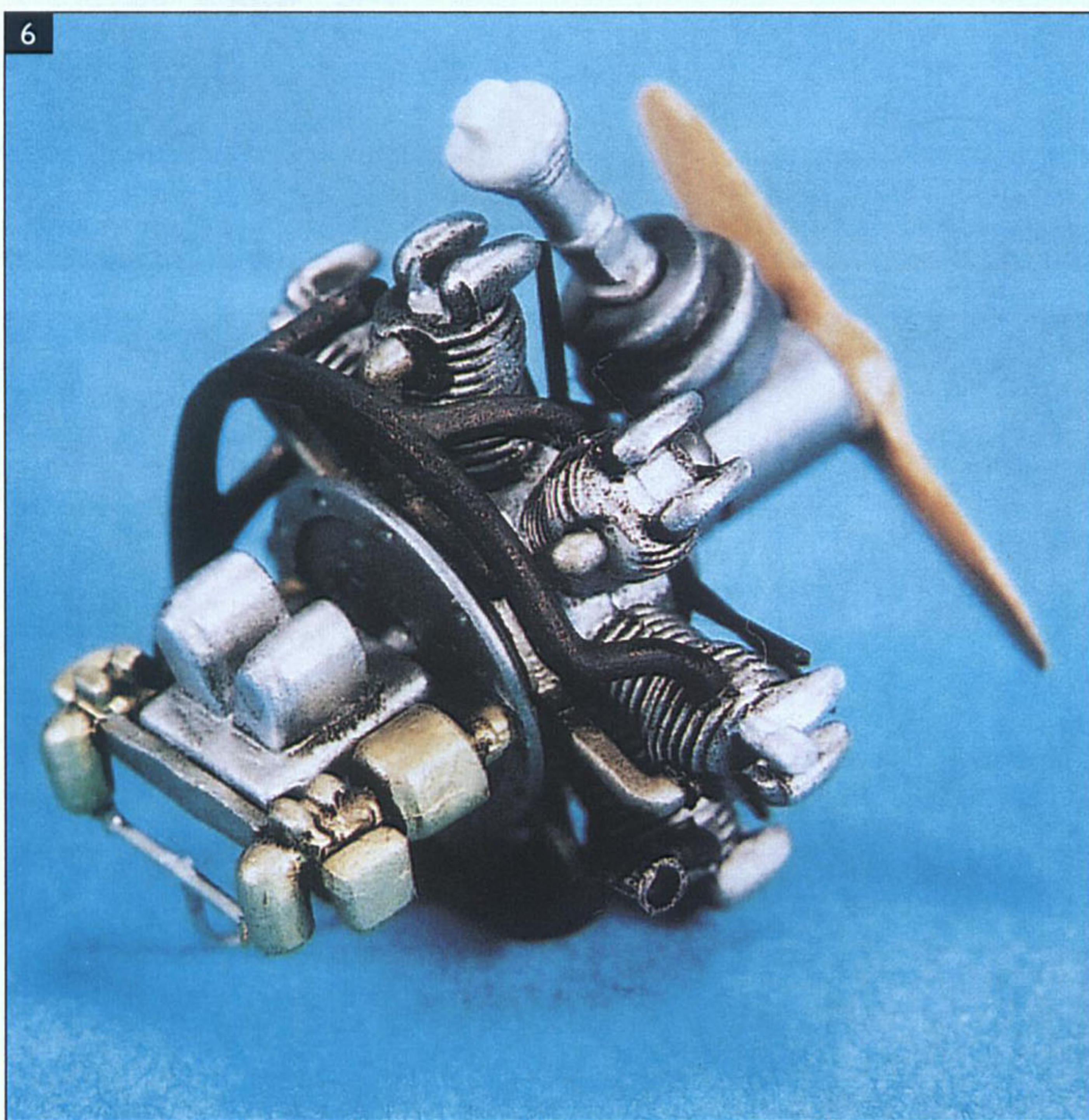
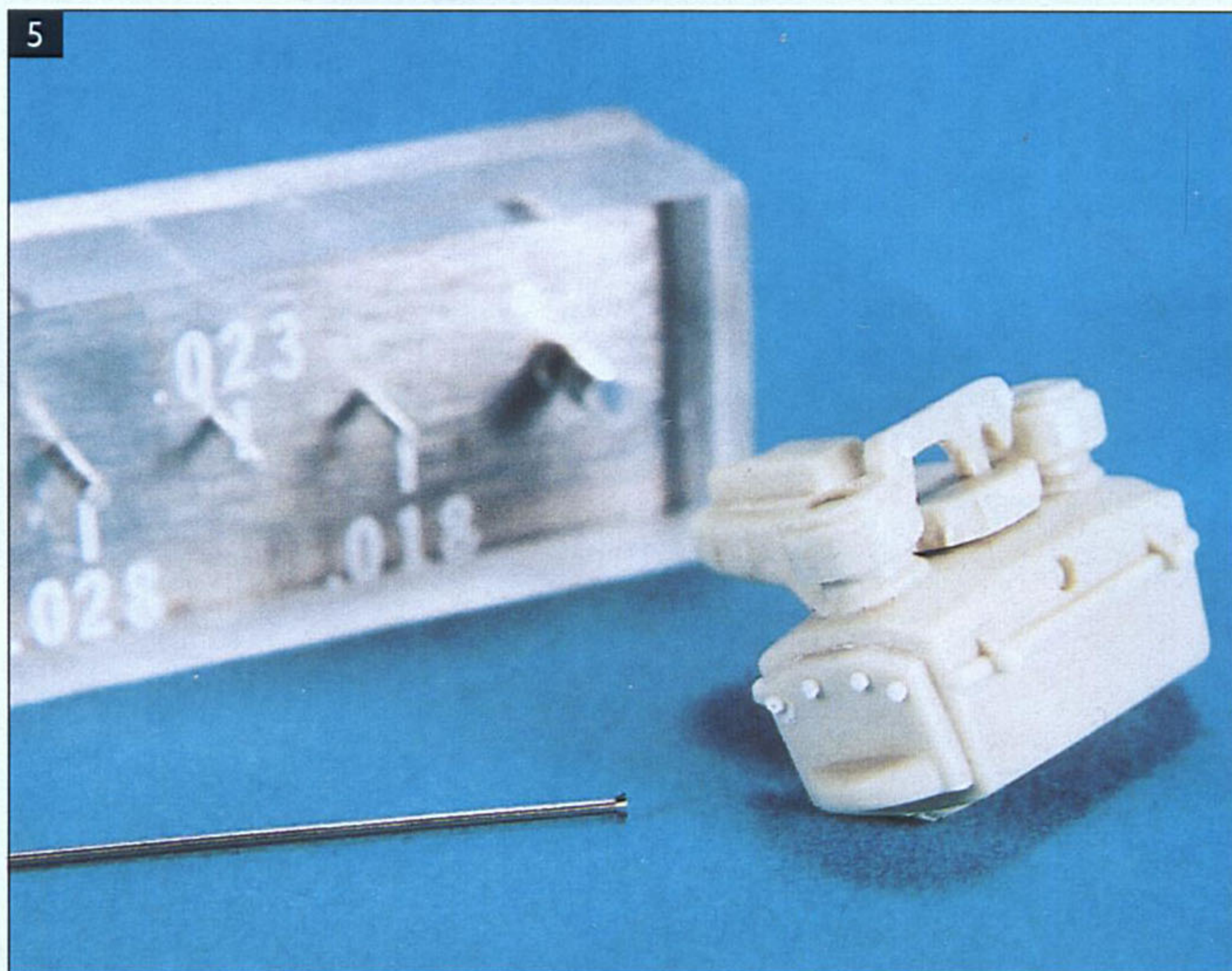
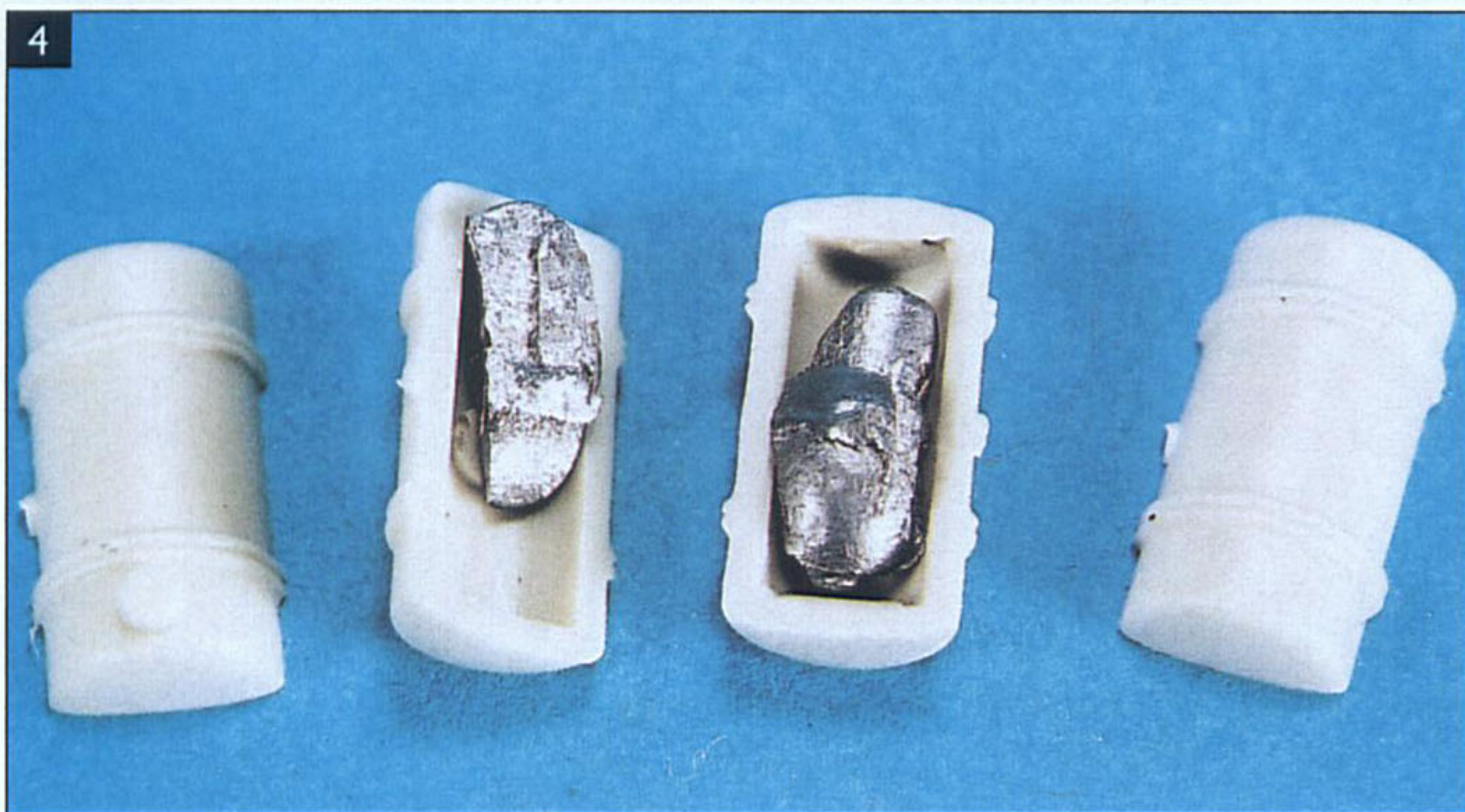
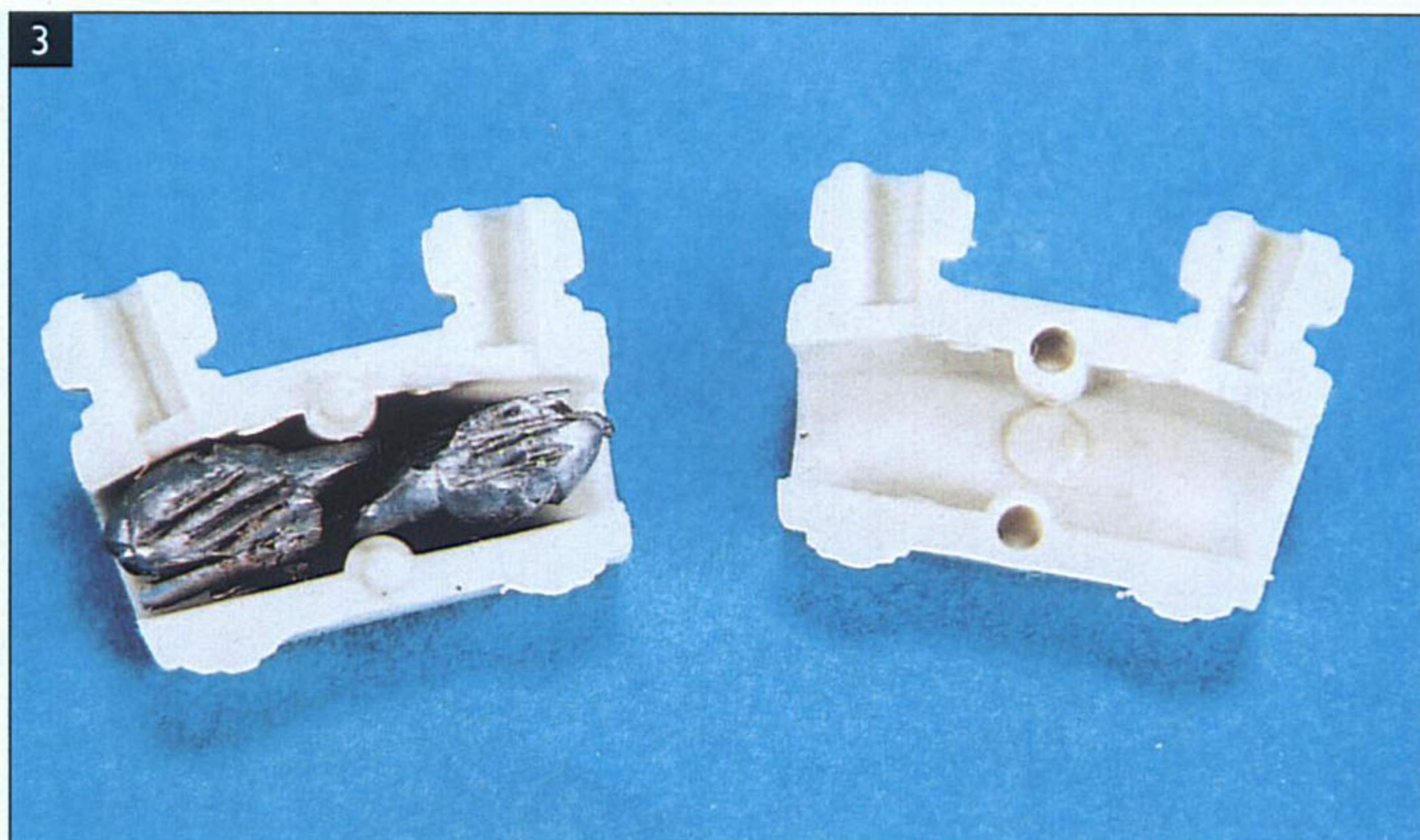
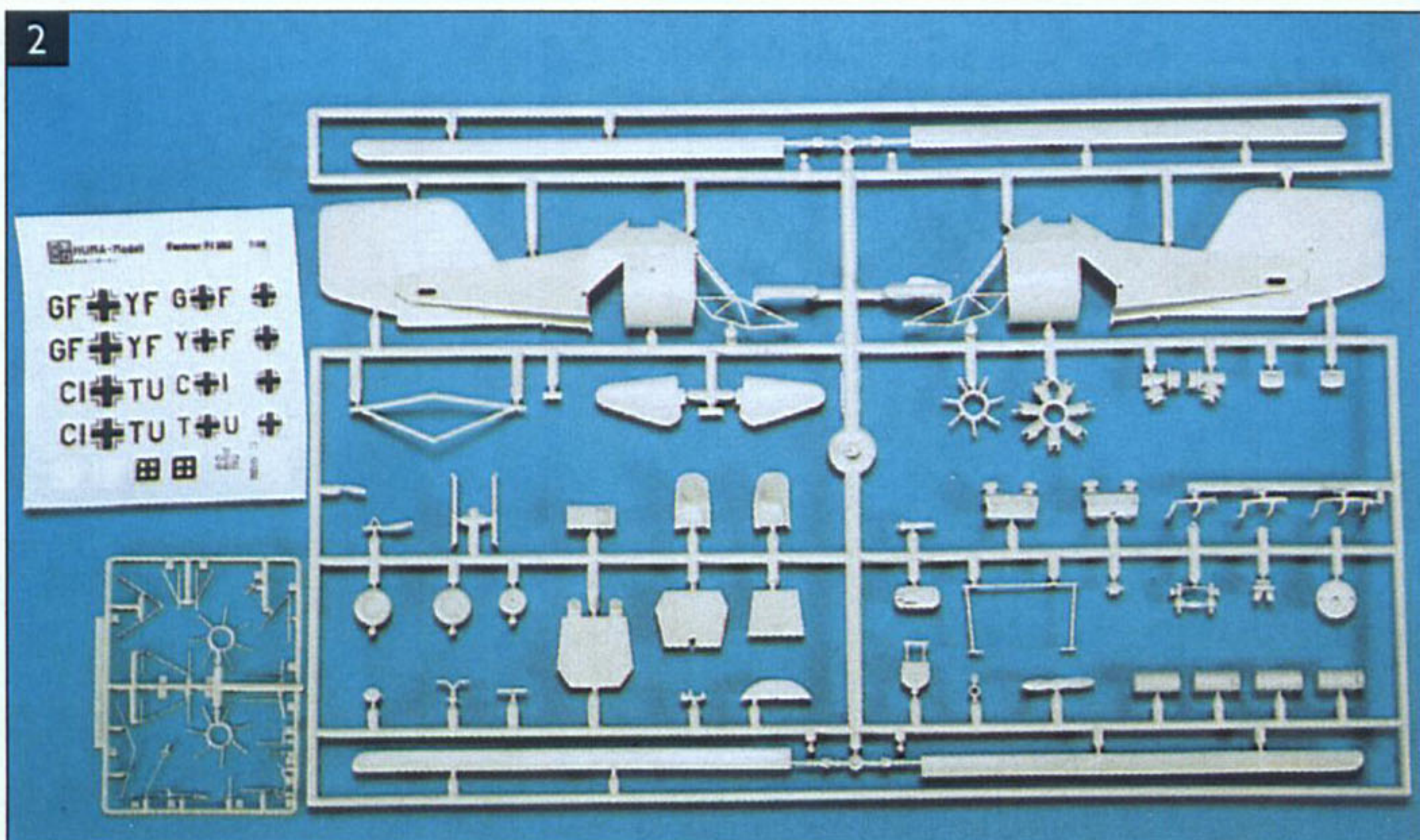
the German Air Ministry ordered a batch of 1,000 machines. Due to the course of the war however, of these, only 24 were built.

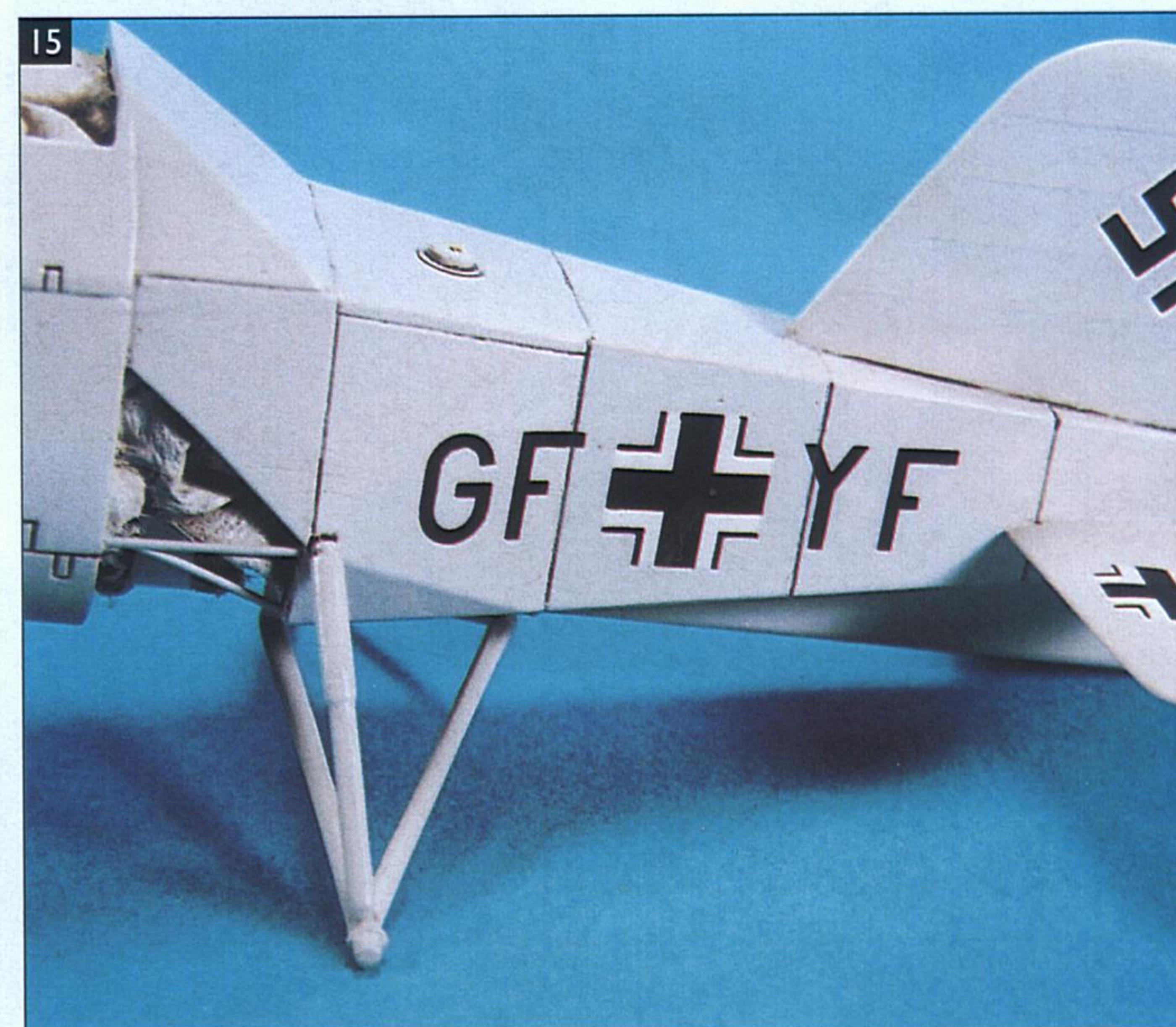
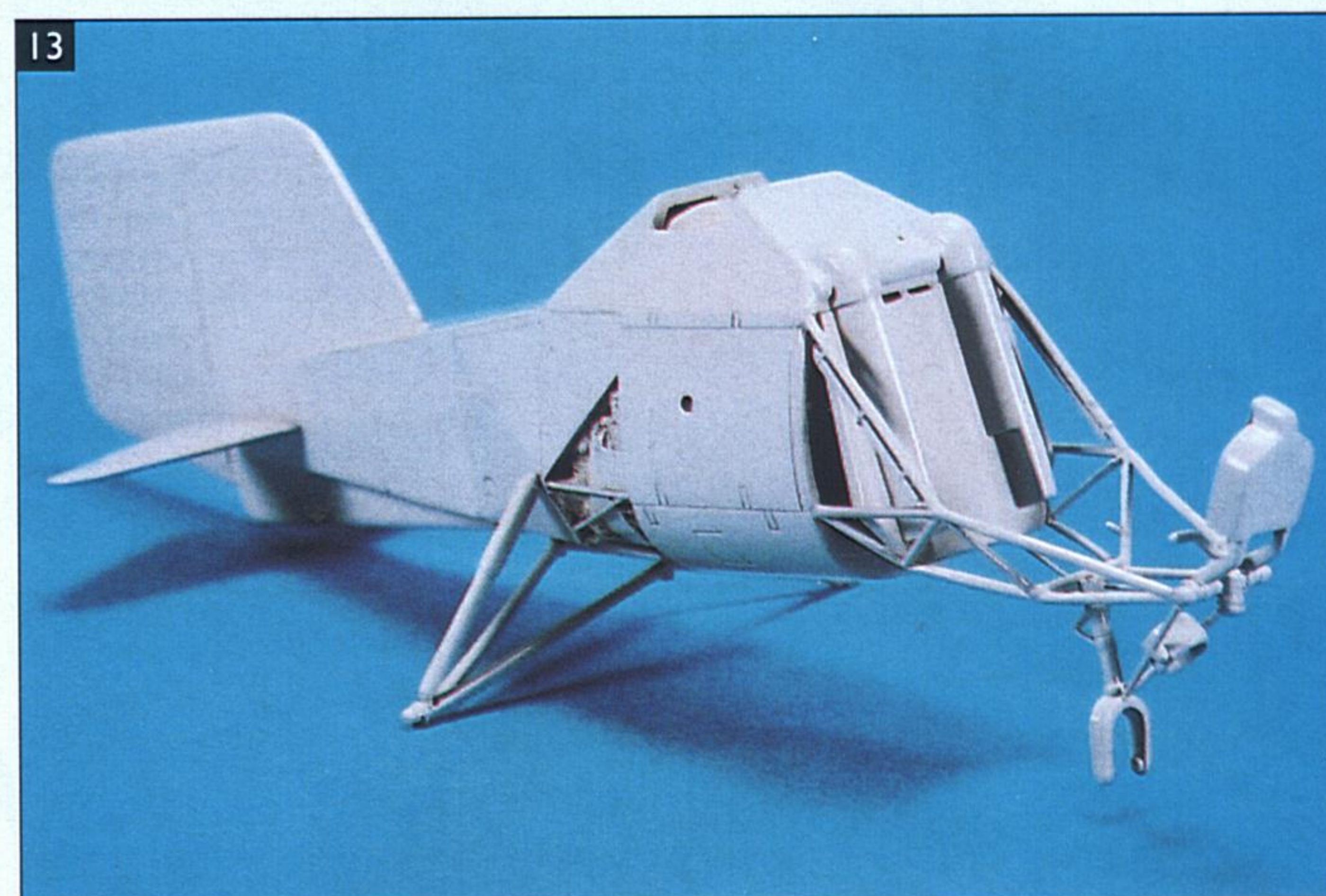
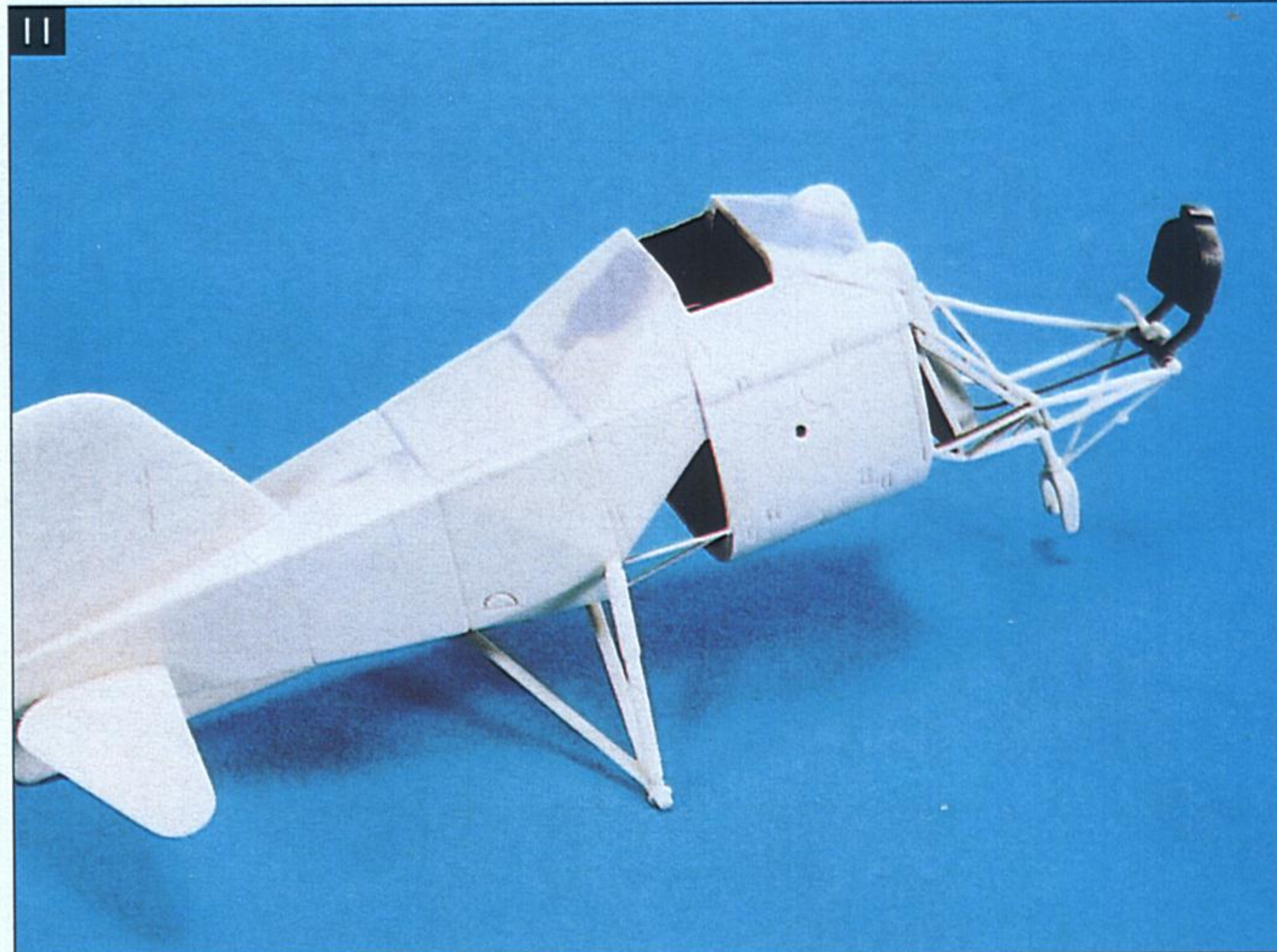
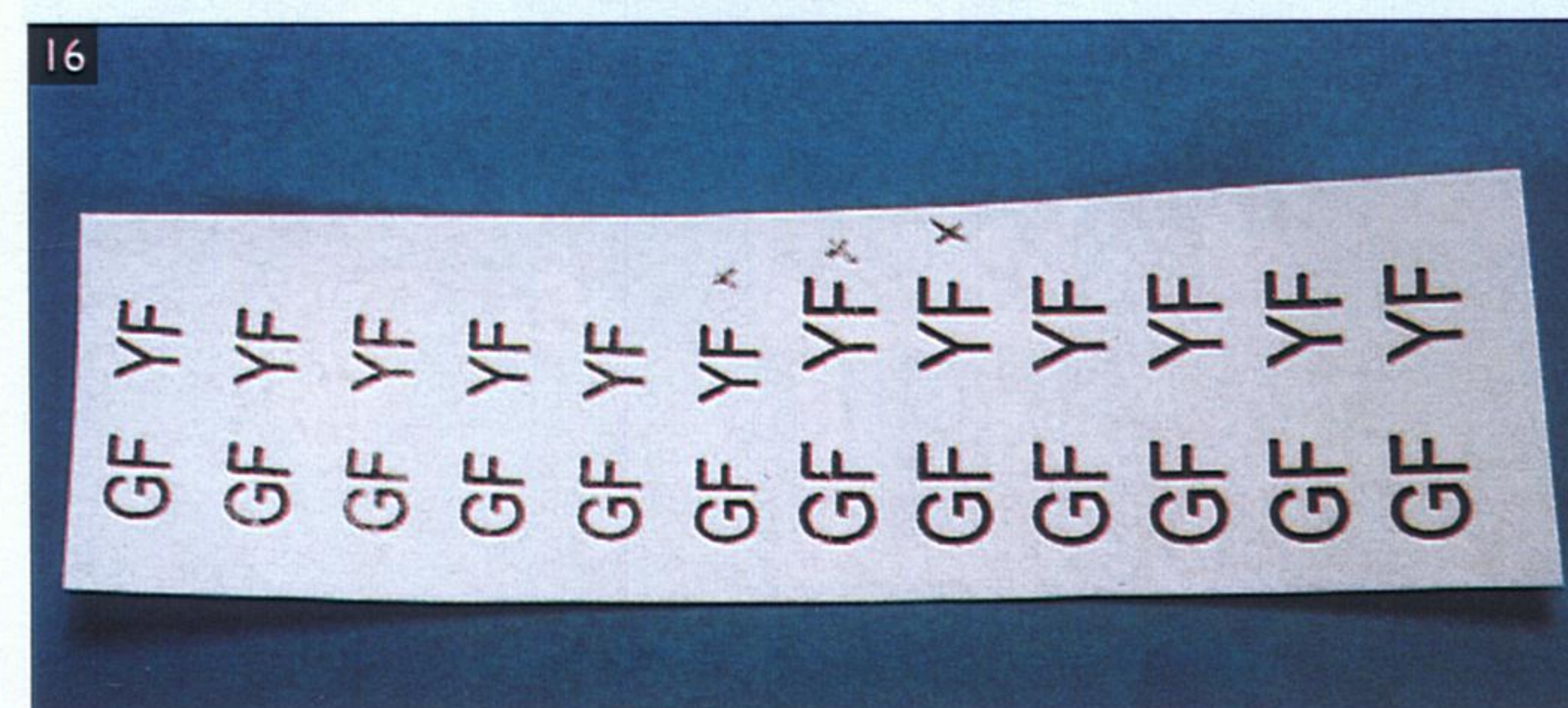
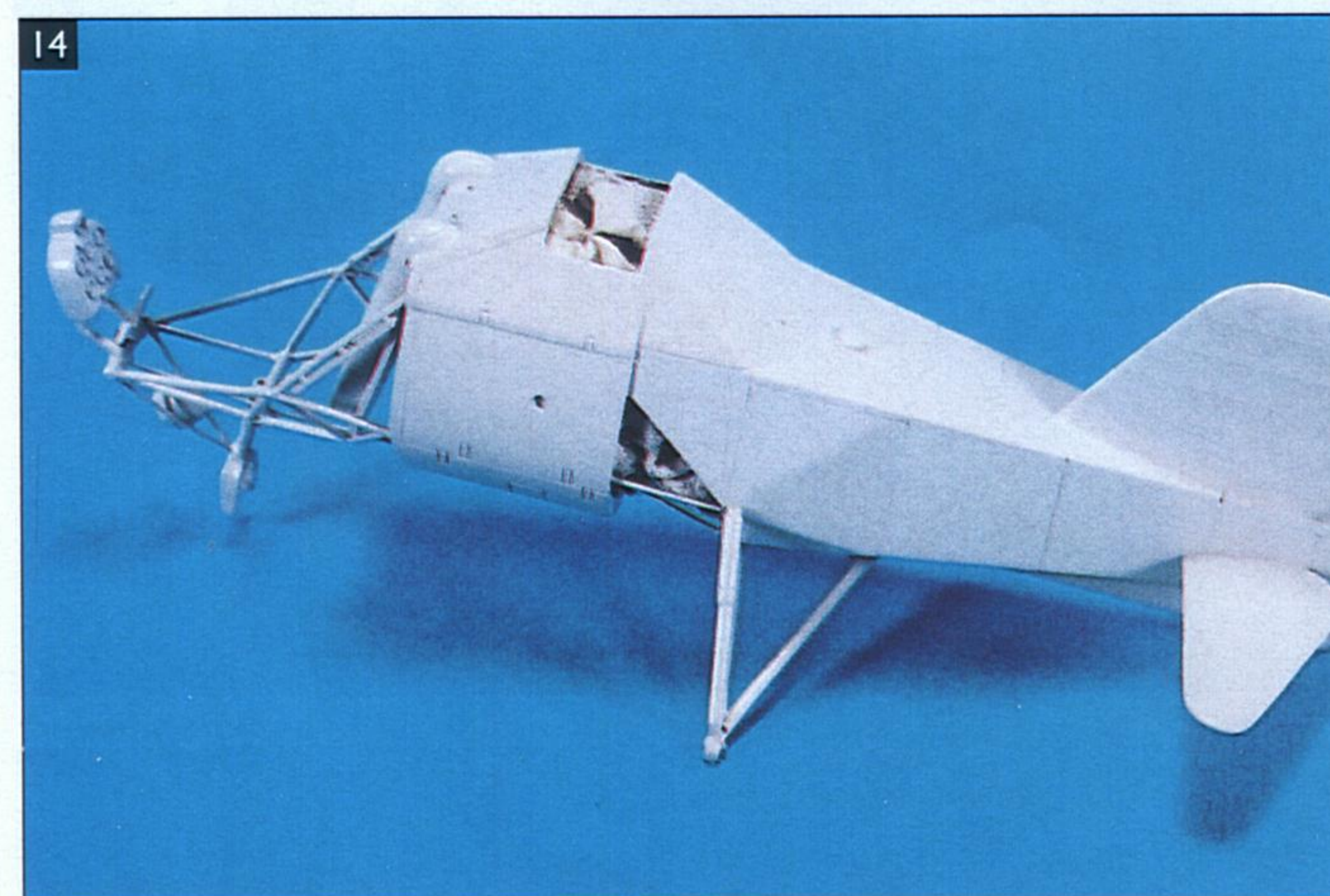
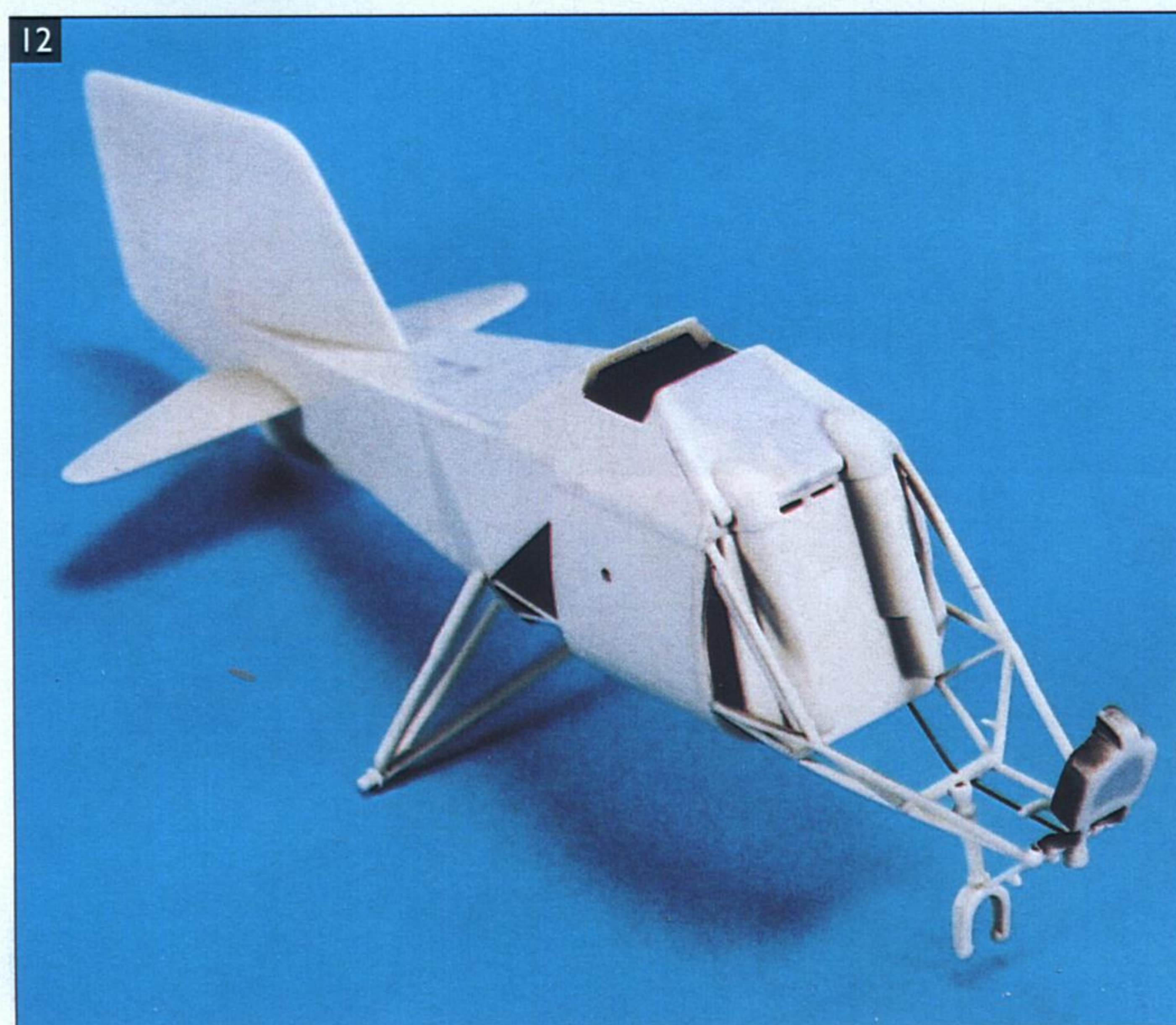
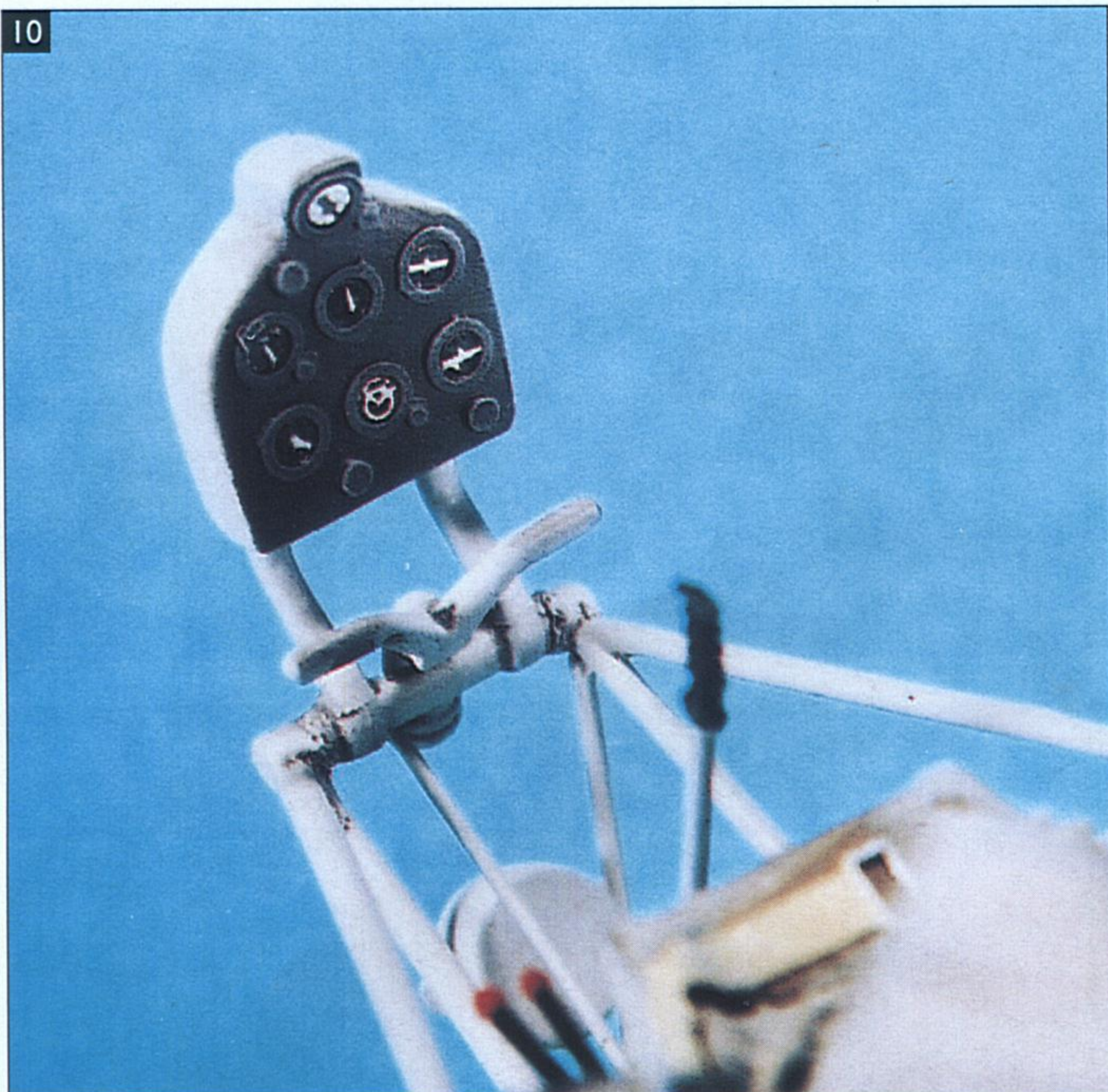
Technical Description

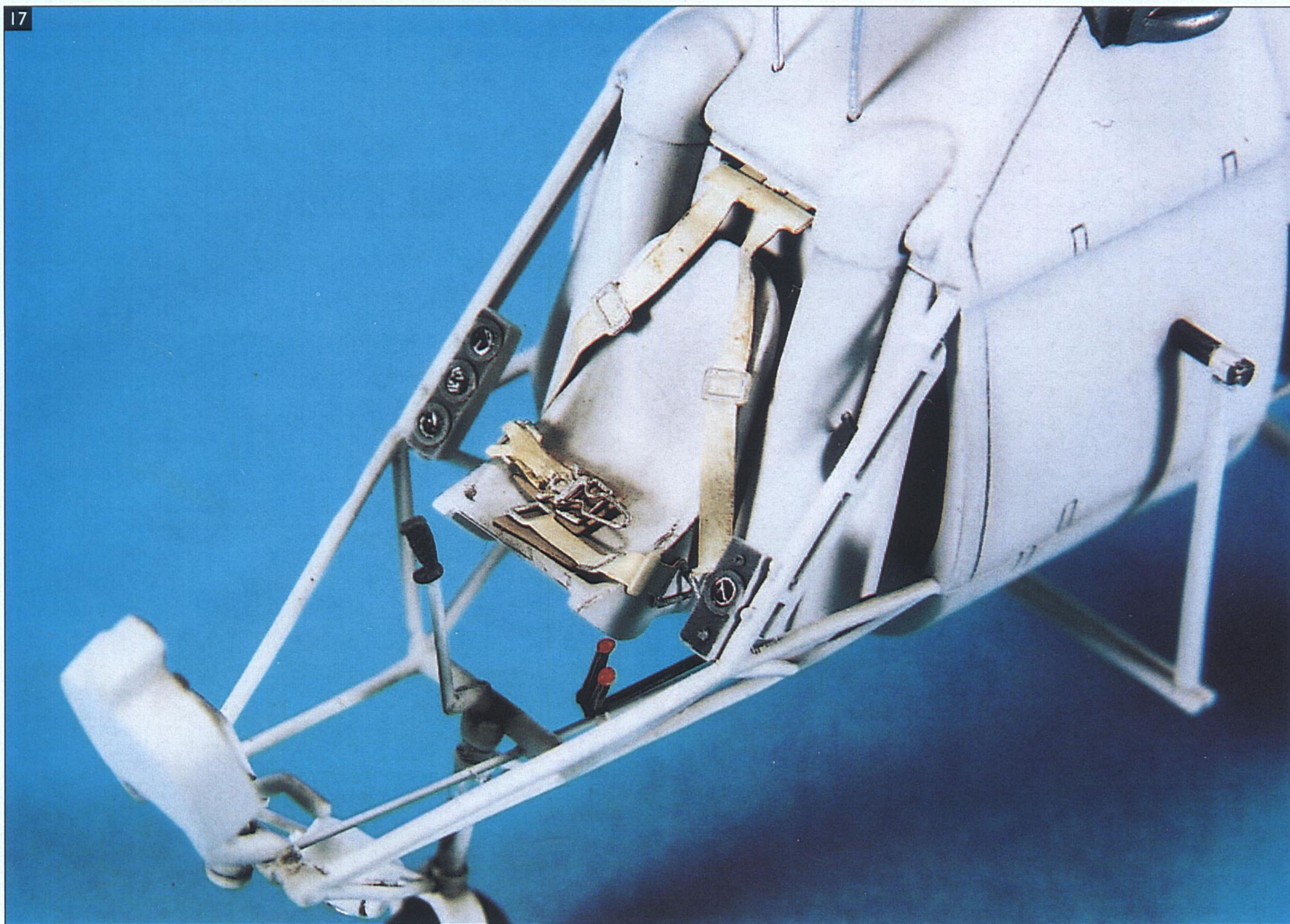
- **Fuselage:** Tubular steel framework with welded engine block and transmission pylon. Front part of the B-0 and B-2 unglazed, B-1 had plexiglass glazing. Central fuselage of oval cross-section and sheet

metal covering, allowing maintenance and engine removal to be performed without dismantling primary structure. Rear fuselage of rectangular cross-section with fabric covering. Engine compartment enclosed by horizontal fire wall extending upwards to the transmission and a vertical fire wall stretching backwards to the main fuel tank and the observer's seat respectively.

- **Rotor Blades:** Tubular steel spar with riveted wooden ribs, plywood and fabric covering. Connected to the rotor head by means of flapping hinges and drag links.
- **Transmission Gear:** An upper transmission gear connected by double universal joints and a lower transmission gear between engine and cooling airscrew.
- **Horizontal Stabiliser:** Horizontal stabilizer two-part and single-spar. Tubular steel spar with riveted wooden ribs. Leading edge fitted with protective plywood covering, remaining surface fabric covered and cantilever. Wooden rudder and fin with fabric covering.
- **Undercarriage:** Strutt rigid main landing gear with oleo legs (length of extension: 120 mm). Strutt rigid nose wheel with oleo leg, directly coupled to rudder pedals (+/- 15° of rotation).
- **Controls:** Flying control about all three axis is effected by changing rotor blade angle through operation of both cyclic and collective pitch







levers and the pedal-operated rudder. The change-over from normal powered flight to autorotation and vice versa is realized by means of a hand operated hydraulic governor dependant on the rpm. In the event of engine failure the governor automatically changes over to autorotation

- Engine: 160hp BMW 314 E, compression 1:6, gear reduction of the rotor 1:12.

The historical background on the Flettner is that provided by Huma in the instructions and in my opinion is quite comprehensive. It goes a long way towards negating the need for any additional reference books.

If you were to ask any modeller to think of companies which produce really good models kits, names like Tamiya, Hasegawa and Eduard spring to mind and I would wager the name, that Huma would not be mentioned. That was how I thought, until I bought Huma's 1/48 Flettner Fl 282 Kolibri. This kit is an absolute gem and sets a new standard in terms of the fidelity and delicacy of the moulding process.

So, what do you get that has me raving so? Well as seen in Photo 2, there are two sprues containing a total of 75 finely moulded parts, 19 of which are located on the smaller secondary sprue and are the most

petite plastic mouldings I have ever seen in a kit. Rounding out the kit contents is a small decal sheet with markings for two schemes (prototype V21, which is RLM 71 Dunkelgrün over RLM 65 Hellblau, or prototype V6 which is overall RLM 63 Lichtgrau). I would have to say that the decals are perhaps the weakest aspect of the kit and I will touch on this later. The instructions are printed on A4 size paper and display rather simplistic colour renderings of the two optional paint schemes and thirteen construction steps. I strongly encourage you to study the instructions carefully and test fit repeatedly, as the location of some of the parts is vague.

The first thing I did was take the time to clean up all the parts. Flash was not a problem, but mould parting lines were a bit of a nuisance, especially on the very finely moulded parts. It was tough to clean them up, without breaking the pieces. Patience and a new #11 blade are the best tools to have. With that tedious chore out of the way, I started searching for locations to hide some lead ballast, as the kit sure looks like it will be a tail-sitter.

I could locate only two areas that would be acceptable for the addition of lead weights and would not detract from the look of the finished model: inside the upper transmission housing as seen in Photo 3 and inside the optional fuel

tanks as seen in Photo 4. I classify the fuel tanks as optional, because they are only applicable to the RLM 71 over RLM 65 V21 machine. At this point I was not yet locked into a scheme, so I explored all avenues in an attempt to hide the weights. Once the upper transmission housing was assembled, I further detailed it with the addition of a few bolt heads on the housing end covers and on the pivot points of the steuerbrücke (literal translation is steering bridge). These can be seen in Photo 5 and were fabricated using the Waldron Sub-miniature punch and die set.

At the risk of sounding clichéd, the BMW 314E engine is a model in itself, being composed of no less than sixteen parts. For the benefit of those who may be lacking in reference material, I offer my selection for the colours used on the various components. Part #1, which is the crankcase and cylinders was first painted Metalizer Steel and given a black India Ink wash. Part #2 is the intake manifold and was finished in Testors Jet Exhaust. The rear crankcase cover is part #3 and was airbrushed with Testors Metalizer Dark Anodized Grey, while the magneto assembly (part #4) and the fuel line (part #6) were both airbrushed with Metalizer Steel. Part #5 is the carburetor assembly and was first airbrushed with Metalizer Brass, followed by a

rather heavy dry-brushing of Jet Exhaust. Parts 7-9 are the exhaust manifolds and were finished using Metalizer Burnt Iron and Burnt Metal after first hollowing out the ends. The front transmission assembly (parts 10, 11 and 13) and upper drive shaft, part #36 were finished in Metalizer Steel. The pushrod assemblies are parts 14 and 15 and were painted gloss black. Finally, part #12, which is the cooling fan, was first painted a gloss wood colour, followed by some darker brown streaking to replicate the wood grain. Huma provides the fan as a two-bladed affair, while the Schiffer book on the Flettner states that it was an eight-bladed fan. No matter, as it is practically invisible on the finished model. My completed engine can be seen in Photos 6 & 7.

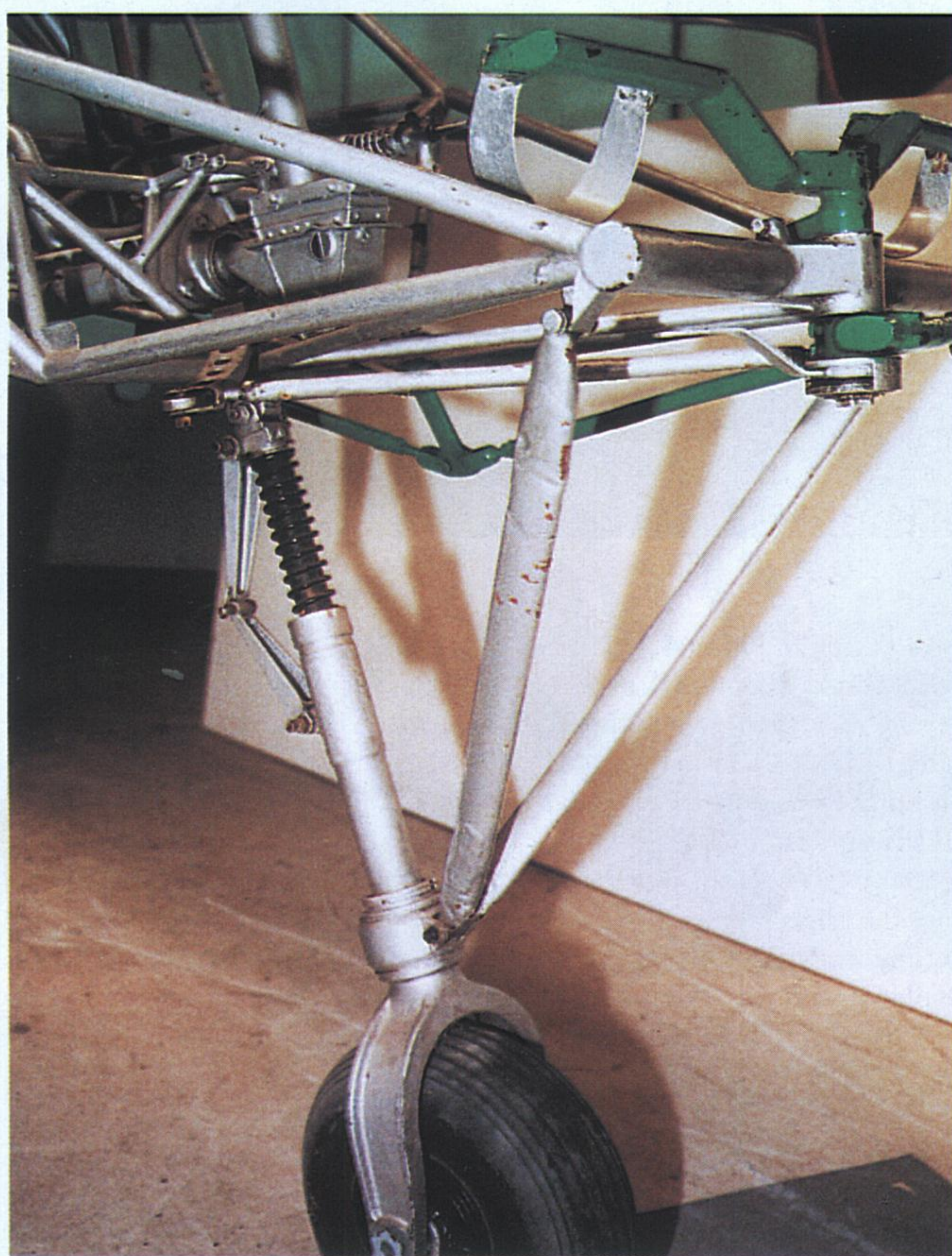
The inside of the engine compartment was airbrushed in RLM 02 and then both halves of the fuselage were assembled, trapping the completed engine inside. It is at this time you must decide on the final paint scheme, as prototype V21 was a two-seater, while V6 was a single-seater. In the case of V21, the second seat occupies the space usually reserved for the fuel tank, which is why it had the extra fuel tanks located up front. I finally elected to build the single-seater, for no other reason than I wanted something in overall grey in my

photo album

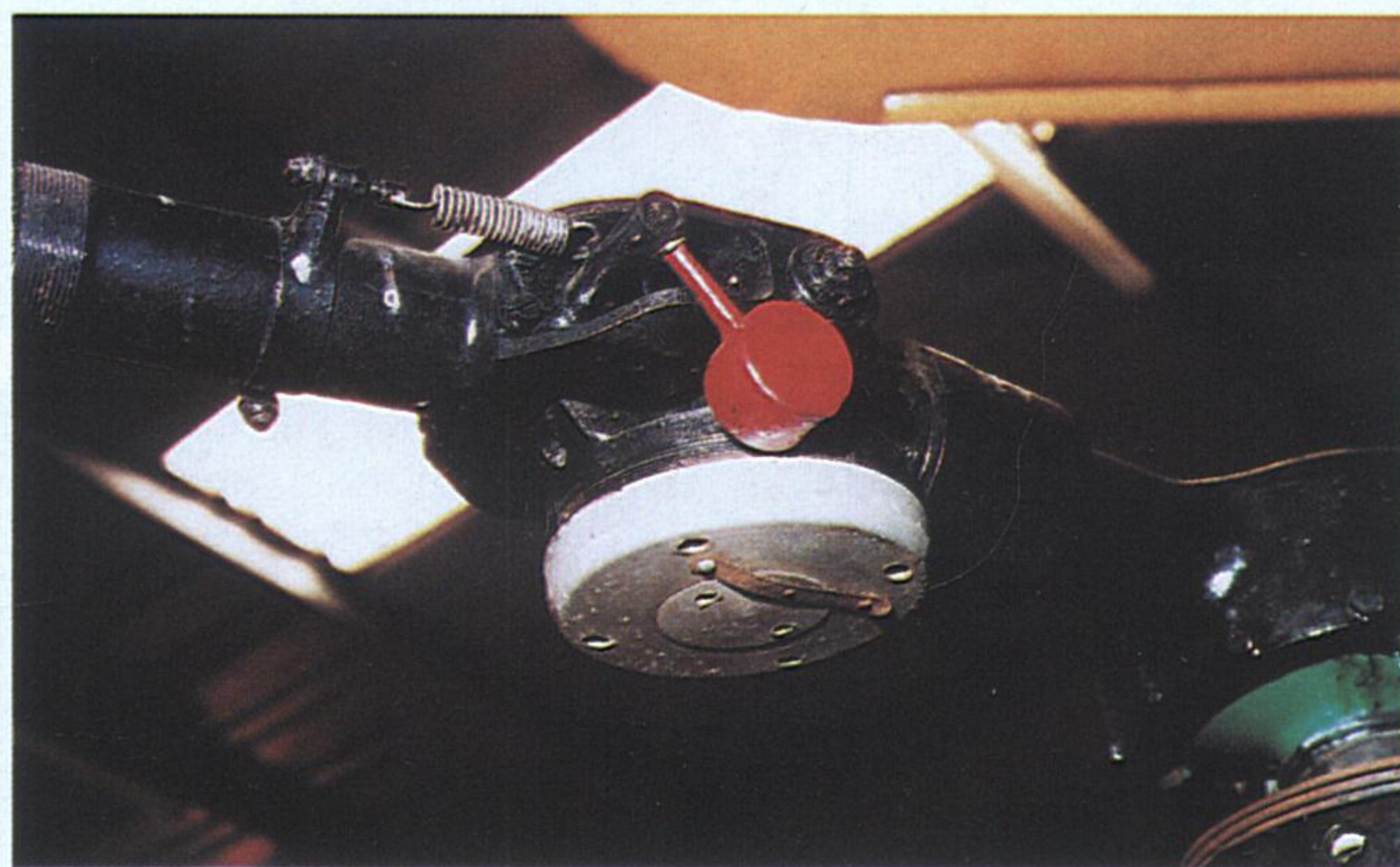
Flettner Fl 282

Photos © R.A. Franks

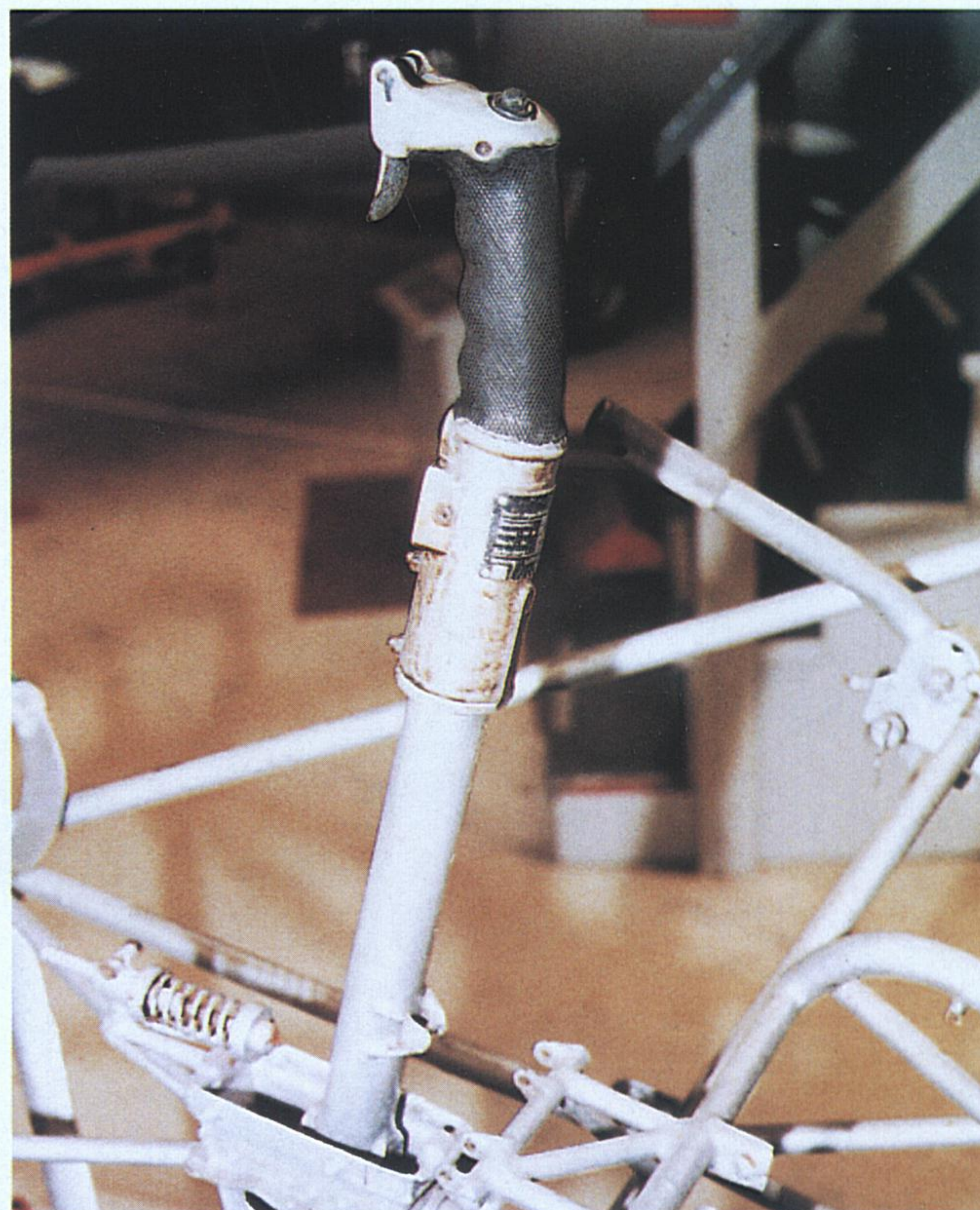
Today very little of a Flettner Fl 282 exists, all that is left is on display at the Midland Air Museum at Coventry Airport (although the NASM has a gearbox from a Fl 282, which will soon be on display at their new facility at Dulles Airport). This machine was captured and brought to the UK in the immediate post-war period and it eventually ended up at the technical college at Cranfield. There I suspect it was used to illustrate the control systems on a helicopter. Over the years the machine lost its fabric covering, its engine and got various parts sectioned to show the interior mechanics etc. Today the framework of this machine is all that is left, although the rotor gearboxes are both in position (albeit sectioned) and there are portions of the main rotors as well.



This view shows the front undercarriage leg and tyre. The latter is not original (nor is the hub I suspect), but it does show that the forward struts are aerofoil in section, unlike those in the kit which are plain rods



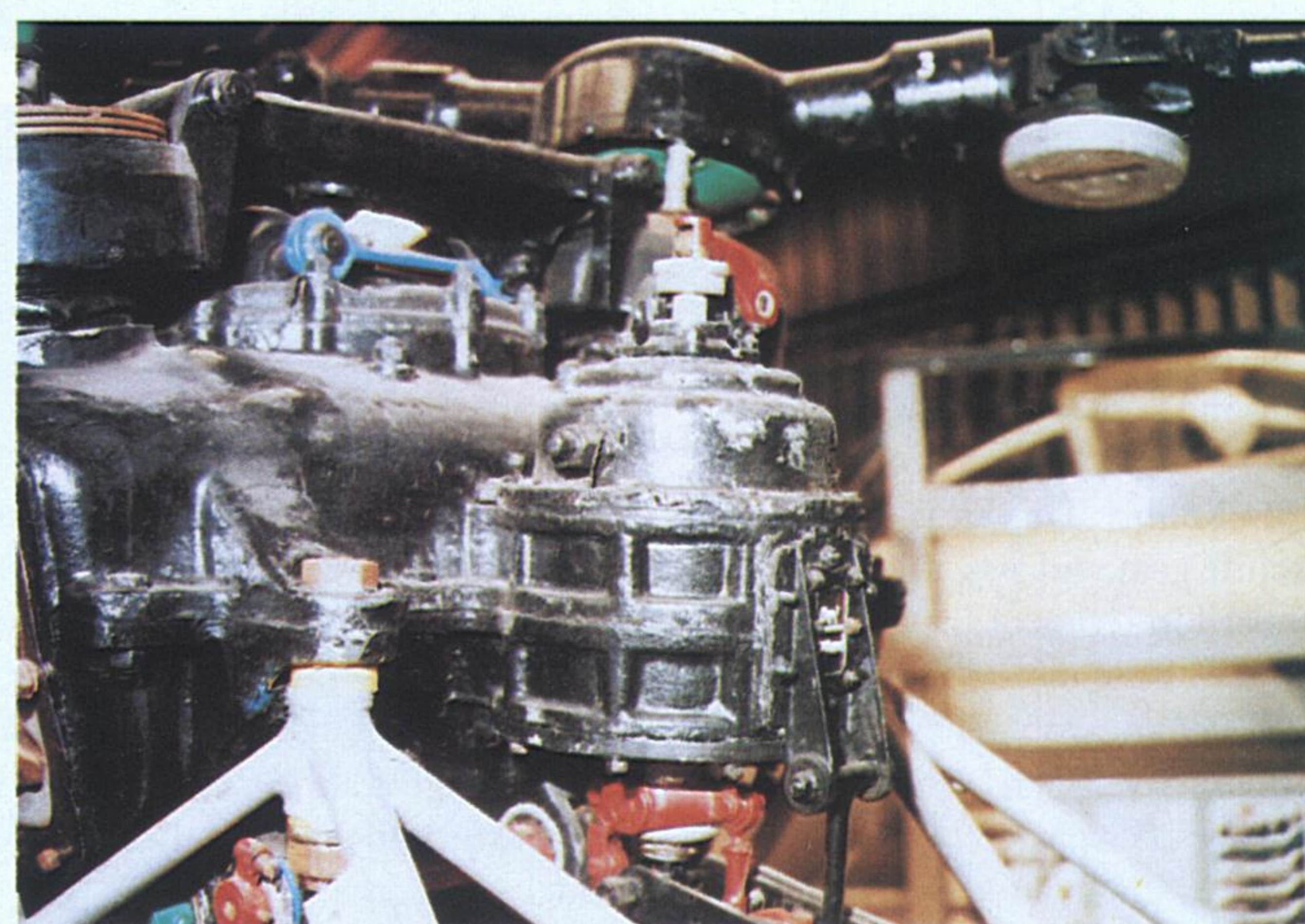
This is one of the weights at the base of the rotor blade. Note the spring and counterweight, all points missed in the Huma kit



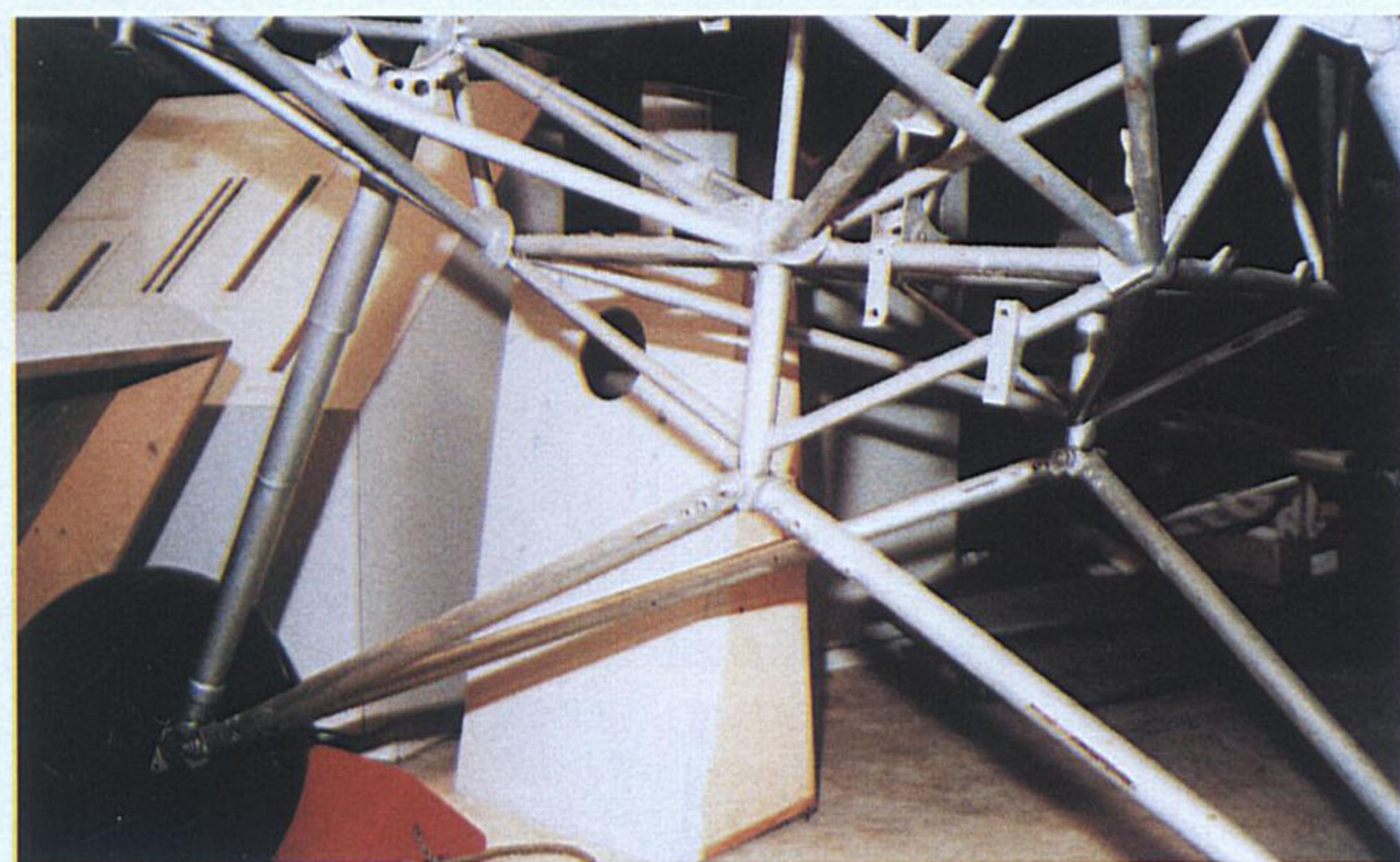
Nice detailed shot of the control column. The top section with the kink in it actually faces forward, so here this shot is looking forward, not back as you might expect



The rudder pedals. Ignore the green paint, this machine had all its controls colour-coded while at Cranfield so that their operation and effects could be seen elsewhere in the airframe. The metal foot straps are also probably a post-war addition, as originally I suspect these were leather



This is the rear of the gearbox unit looking forward



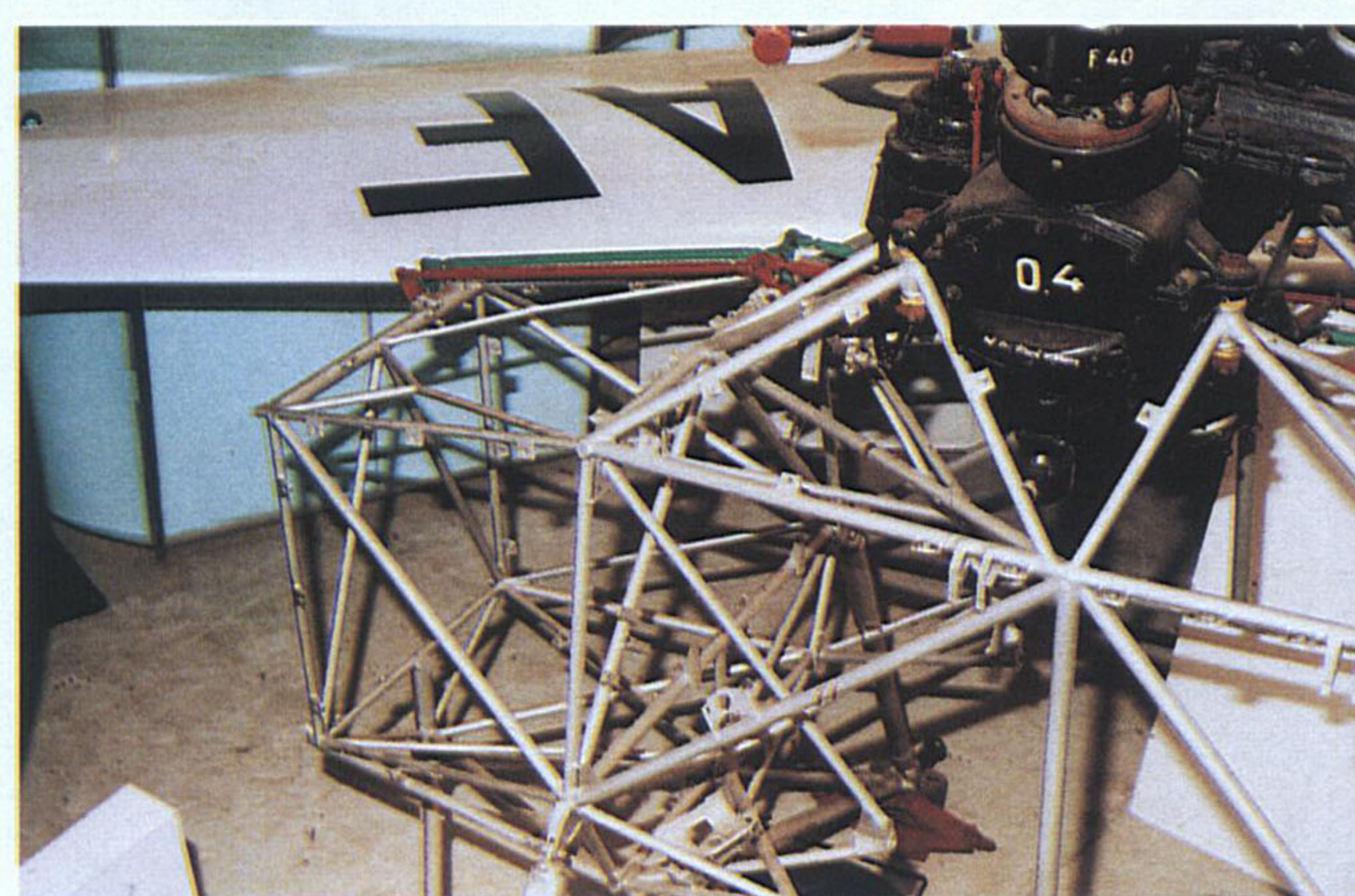
The main undercarriage framework is quite complex, as can be seen here. Note the manner in which it is all bolted together and the holes in the rods in the centre



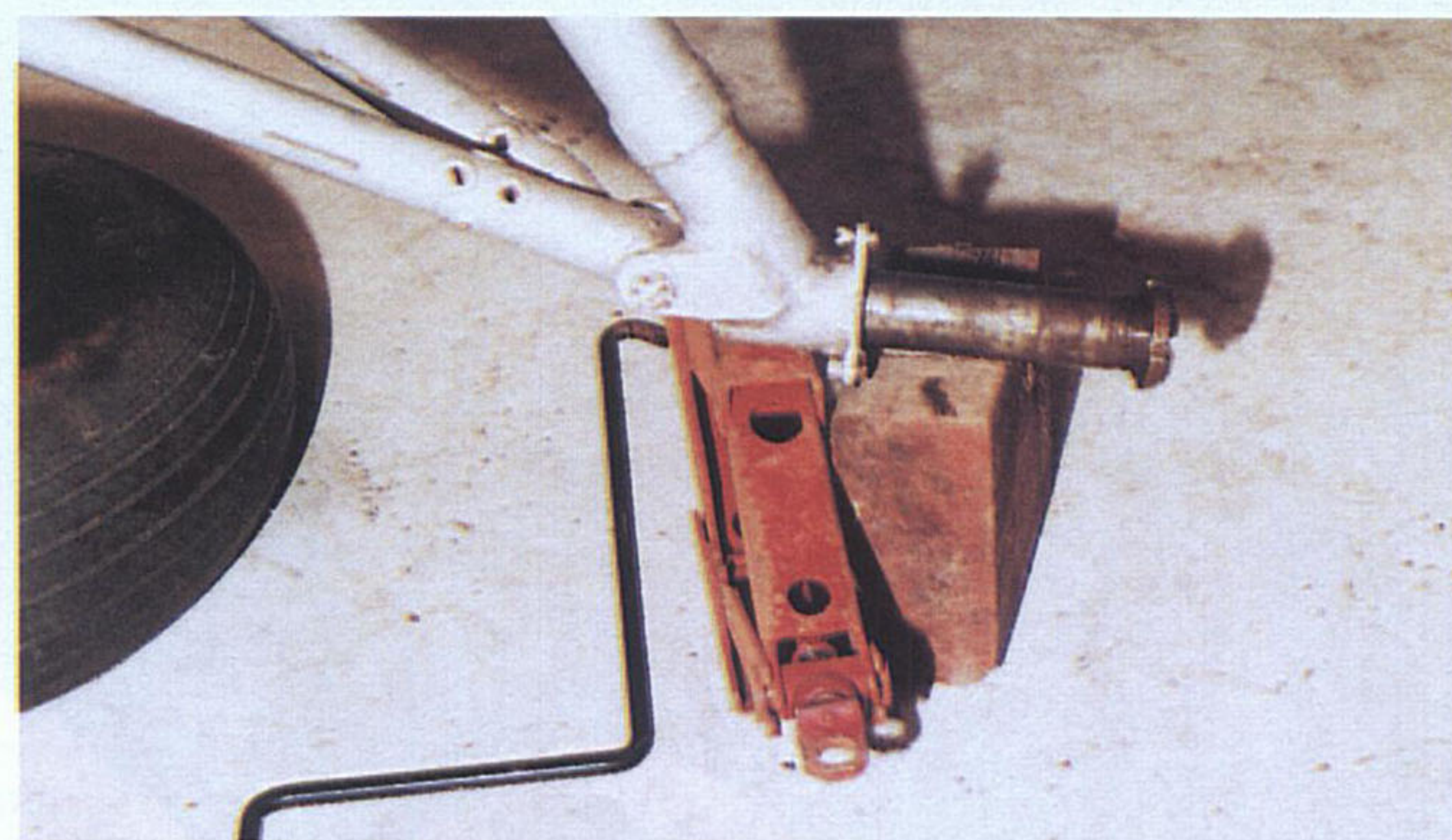
The removed main wheel and hub. I am not sure these are original, as they did not seem to be of German origin?



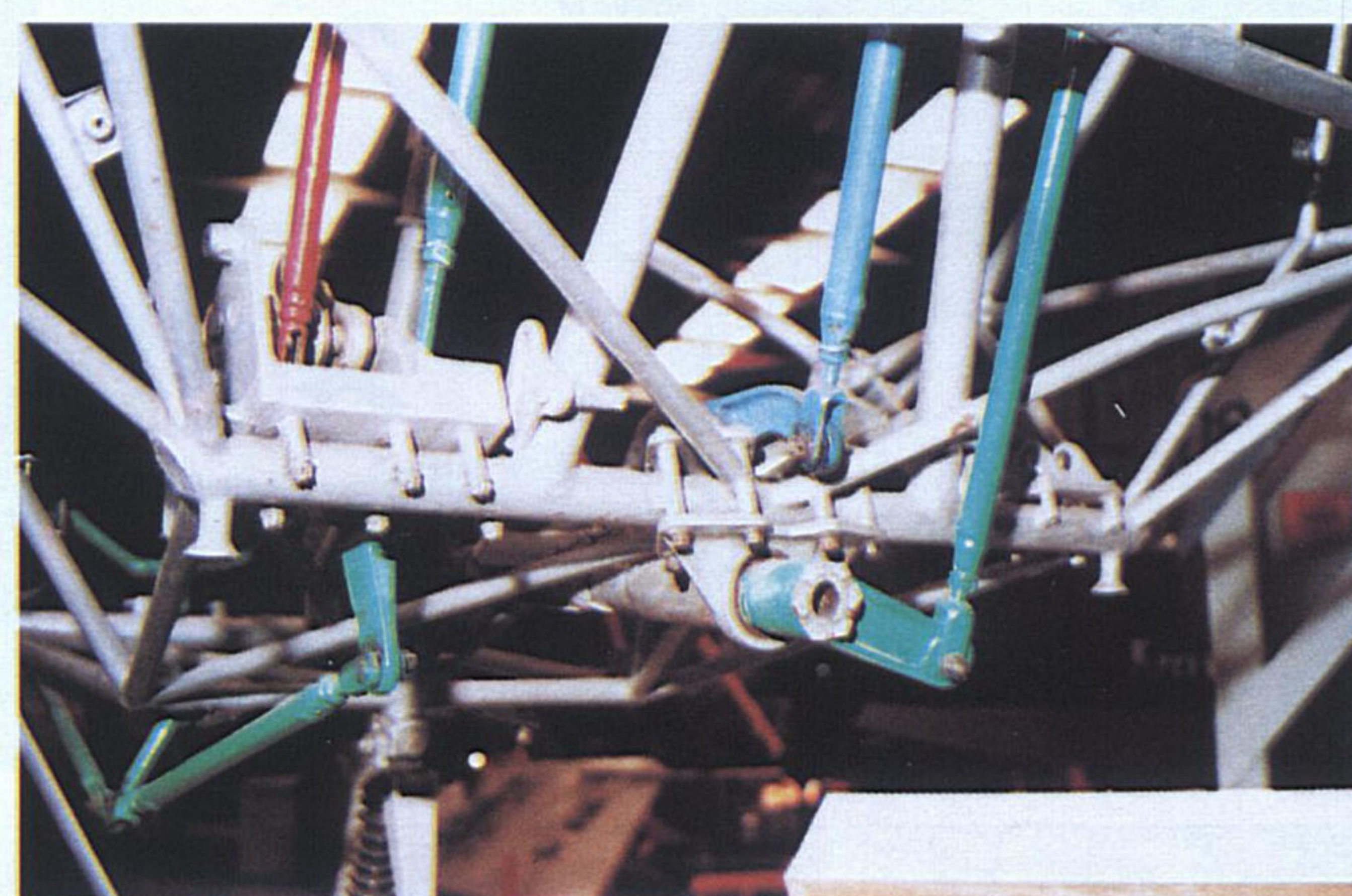
An overall view of the mid section just to give you an idea of the mind-boggling array of tubes that went to make up the Fl 282



A look down into what would have been the engine and fan area. The tail section is long gone and I wonder if this was wooden in the original design?



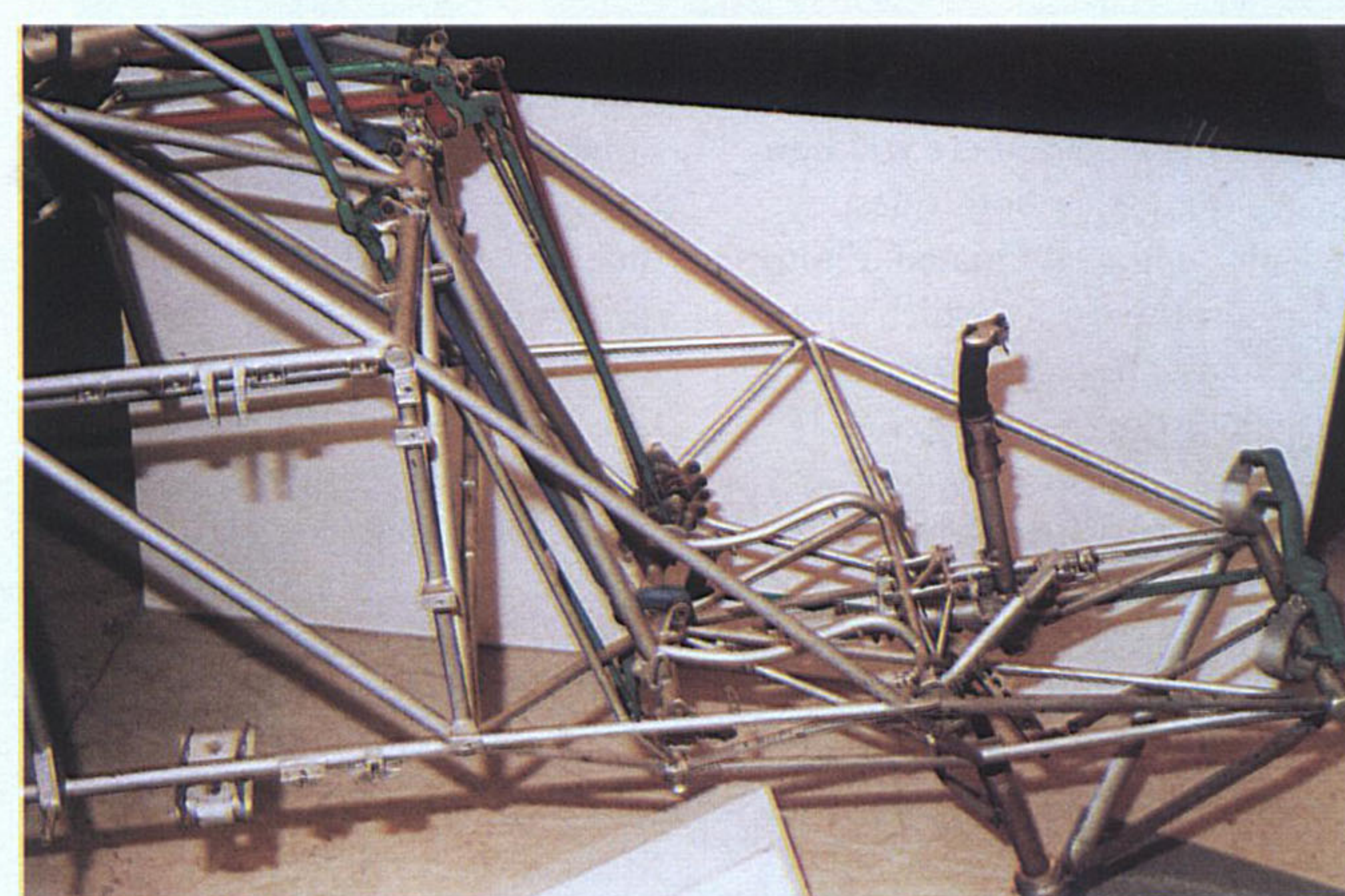
This is the port main wheel axle with the tyre off. Note the construction of the framework at the junction of all three tubes



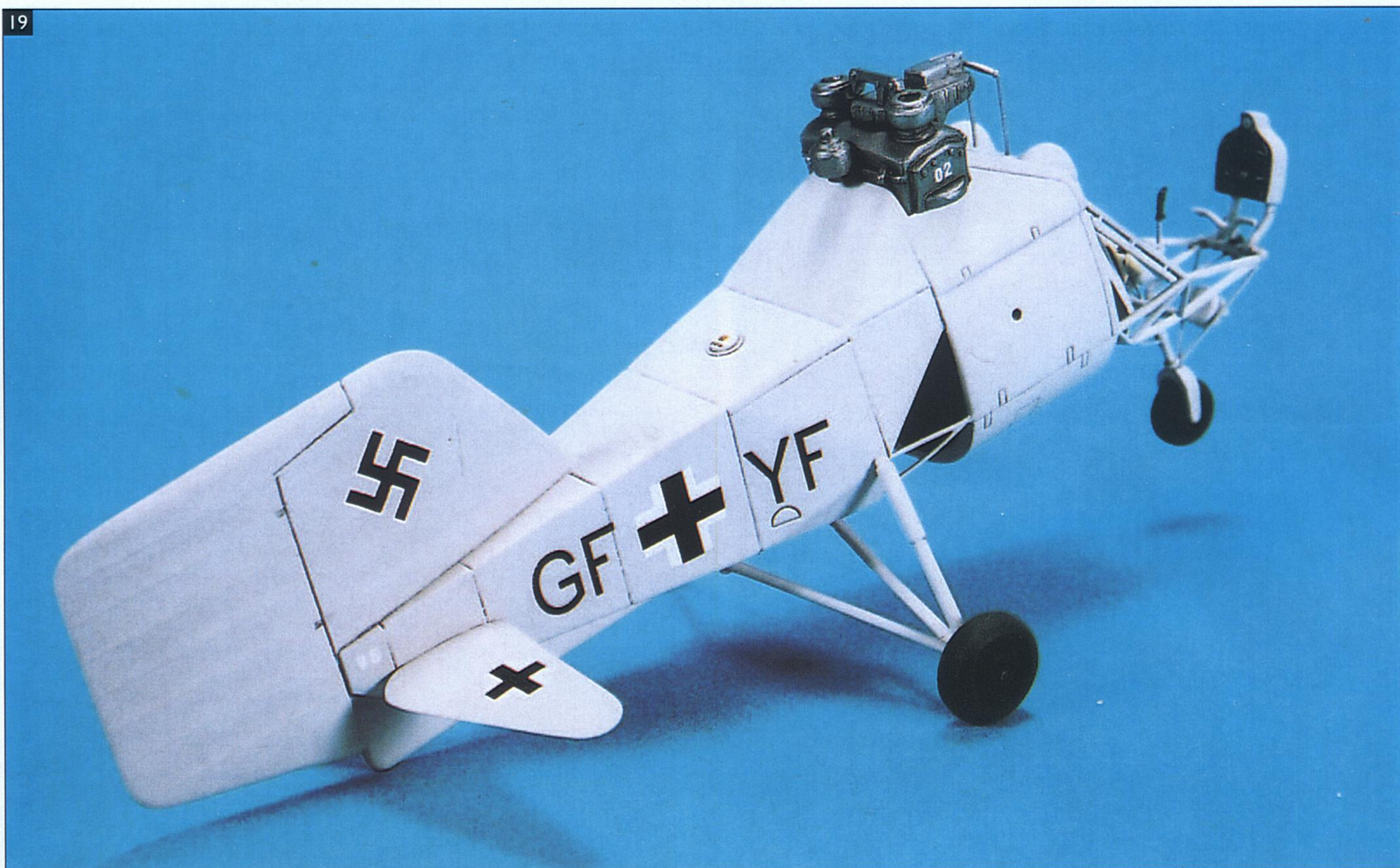
This view was taken directly below where the pilot's seat would be looking forward. Here you can see the control linkage etc in this area



Nice overall shot of the rotor head and gearbox area. Note the style and shape of the forward section of the gearbox into which all the control linkage goes, is not as depicted in the Huma kit, being less of a projecting casting



Now you can get an overall feel for the cockpit area and all the control linkage and other rods in that area



Here is a line-up of FI 282s outside the Flettner plant at Bad Tölz in Bavaria in the war

display case. This means that I used part #67, which is the cover for the rear cockpit and dispensed with part #30 and part #66, which are the rear seat and headrest respectively. The instructions are a tad confusing in this regard, as they would have you install both the rear headrest and rear cockpit cover on the same airframe, whereas the two parts should be mutually exclusive. Once part #67 is installed, there will be a seam on the top, at both sides, which should be eliminated. Photo 8 indicates the seams, which should be filled and sanded smooth.

Prior to installing the main instrument panel (part #35), it, along with the two auxiliary panels, needed a little attention. Huma has moulded them smooth and featureless and would have you install decals to represent all the instrument detail. This was not acceptable to me and was a simple matter to correct. I used some old Hodge Podge generic instrument bezels and a few buttons made out

of styrene with the aid of my Waldron Punch and Die set. These can be seen in Photo 9 and while not 100% accurate, they go a long way towards improving the appearance of the instrument panels. I know well, that I should really have used some bezels, which more closely followed the German style, but I had none on hand and none of my local hobby shops carry much in the line of aftermarket accessories. As I do not believe in mail orders, for they will be the death of the local hobby shop, I used what I had on hand. The finished result on the main panel can be seen in Photo 10 and is more than acceptable to me.

Photos 11 & 12 provide a couple of views of the completed airframe, as it stands ready for paint, while photos 13 & 14 show the model after receiving a few coats of Xtracolor X221 (RLM 63 Lichtgrau). The decals were next to be applied and I must say that I was less than impressed with the way they went

on. They are a little on the thick side and seemed to be impervious to Solvaset. In addition, the decals had what appeared to be a slight weave-like texture. To further compound the decal woes, no swastikas were provided. I managed to obtain some swastikas from AeroMaster sheet 48-025 and once applied, I thought I was ready to go on to the next step. However, as I was looking at my references, I noticed that Huma has provided the wrong style of crosses. The crosses should not have the extra black outlines as seen in Photo 15. I realized this after the decals had been on for a few days. Normally, a piece of masking tape will lift off a decal in one piece, but not so with these markings. No amount of tape would lift them off the model. I was forced to resort to sanding the markings off the kit and in doing so, managed to sand off the codes and some of the paint. This necessitated a complete stripping job and repaint. However, I still had to

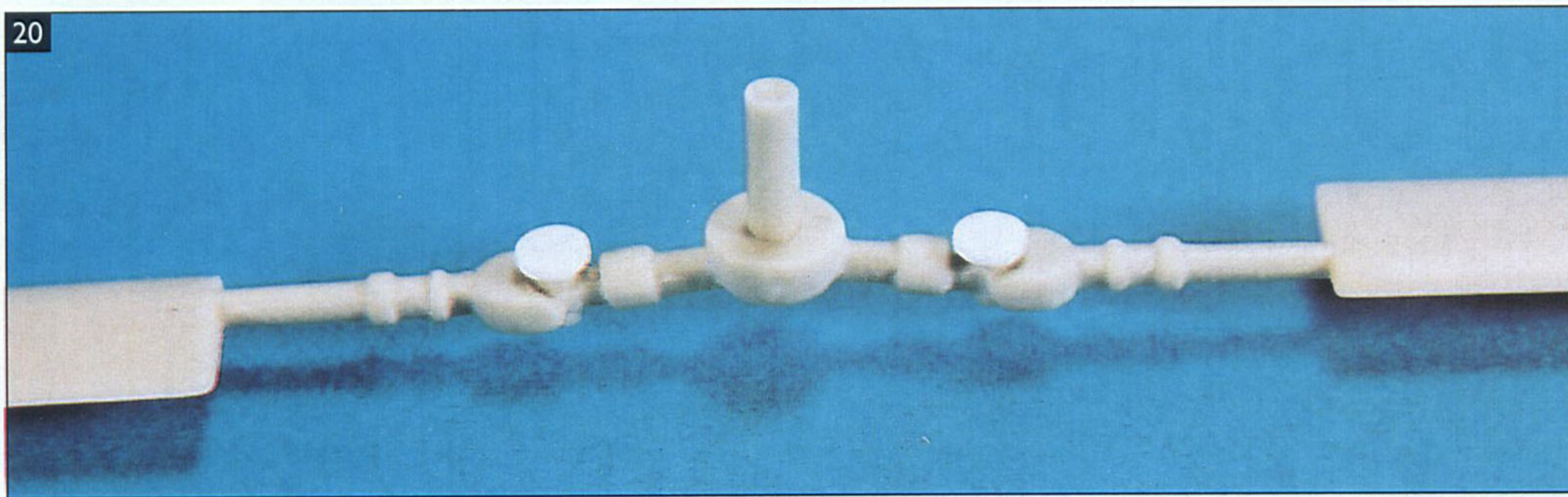
come up with some national insignia of Lilliputian proportions and new code letters.

I was fortunate to pick up a very old, but out of register Micro Scale, 1/72nd sheet of German Insignia, which had the correct style and size of crosses. To come up with the codes, I used an Arial font on my PC and printed the codes on clear decal film as seen in Photo 16. I laid out extras, as my Laserjet printer does not always print well on decal film. With the new codes and crosses in place, I gave the model a medium grey wash in all panel lines and then applied a few coats of Testors Dullcoat.

I added a set of seatbelts using the older Eduard unpainted set, part number 48-290. The belts were airbrushed with Xtracolor X21 (RFC Doped Linen) and drybrushed with various shades of brown to show signs of wear. I don't like the look of the new pre-painted belts, as I find them too clinical looking and I take



Another wartime shot, this time of an FI 282 that is probably undergoing trials



exception to using pre-finished parts in my models. It is just a personal choice and is in no way meant to condemn those who opt for the easy way out. My finished belts can be seen in Photo 17.

I was on the homestretch now and the little helicopter was starting to take shape. I added the upper transmission housing after it was finished in Metalizer Dark Anodized Grey, given a dark wash and dry-brushed with Steel. The wheels, landing light and flight controls were added, and still the model refused to settle on its nose-wheel, as can be seen in Photo 18 & 19. I thought that I might have to go to my local medical supply centre to obtain some small helium capsules, to be placed in the rear of the fuselage in an attempt to obtain some form of buoyancy.

I added some subtle weathering with medium grey chalk pastels and then set about finishing the rotor blades. The first thing I did with the blades was replace the kit vibration dampers (parts 71, 72, 74 and 75) with new units made from sheet styrene using my trusty Waldron punch and die set. Actually, I made two sets, or eight dampers in total. Four dampers were installed prior to painting (See photo 20) and the

remaining four were fastened after all the painting steps had been completed. I chose this approach based on photos in the Schiffer book. If you look closely, you will notice that the actual dampers appear to be two layers thick, with one layer being the same colour as the rotor head assembly with the second layer, a lighter colour. With the first layer of dampers in place, the rotor head assemblies were airbrushed with Testors Metalizer Gunmetal, dry brushed with Steel and then rubbed out with graphite powder. Then the second layer of dampers, which were painted Metalizer Steel, were fastened. The rotor blades themselves were airbrushed RLM 63 and glued in place with a small drop of five-minute epoxy. When attaching the rotor blades, one must be cognizant of two things; first, the blades are handed, with the right blade rotating clockwise, while the left blade rotates counter-clockwise. Second, the only time the two blades are parallel, is when they are at 45° to the centreline of the aircraft. You will notice in photos 21, that with the installation of the rotor blades the model finally sits on all three wheels.

This completes my Flettner and I

must say that the finished model is quite diminutive and makes an attractive diversion from my usual single-engine fighters. I thoroughly enjoyed building this model and can see myself building another in the RLM 71 over RLM 65 scheme. If I have any complaint with Huma, it is that they do not offer more subjects in 1/48th. Based on the quality of this kit, I would welcome the opportunity to build another Huma model down the road.

My model represents the Flettner Fl 282 V6, piloted by Hauptmann Claus von Winterfeldt, of Erprobungs- und Lehrkommando 20, while undergoing trials on the Kriegsmarine minelayer Drache in the Aegean Sea in early 1943.

My principle source of reference was the Schiffer book, No. 6 in their Luftwaffe Profile Series, with secondary information obtained from various websites on the Internet.

Randy Lutz



Colour Chart

Using the Testors Modeler's Technical Guide, IPMS Color Cross Reference Guide and colour charts from Lifecolor and Vallejo we can cross-reference the colours used in the above build article into the following available paint ranges.

RLM 02 Grau

Acrylic

AeroMaster 1010, Floquil 505075, Gunze Sangyo H70, Lifecolor UA071, Model Air (Vallejo) 044 and Tamiya XF22

Enamel

AeroMaster 9020, Floquil 303271, Humbrol 92 and Xtracolor X201

RLM 63 Litchgrau

Acrylic

AeroMaster Warbird Acrylic 50128, Model Master Acrylic 50128, Poly Scale 505302, Poly S 500711

Enamel

Model Master Enamel 2077, Xtracolor X221

RLM 65 Litchblau (FS35256)

Acrylic

AeroMaster Warbird Acrylic 1021, Gunze Sangyo (Mr Color) H67, Lifecolor UA061, Niche 5911, Poly Scale 505051, Vallejo (Model Air) 008

Enamel

AeroMaster Warbird Color 9021, Floquil Classic 303245, Humbrol 65, Model Master Enamel 2078, Xtracolor X202

RLM 70 Schwartzgrün

Acrylic

AeroMaster 1023, Gunze Sangyo H65, Lifecolor UA051, Model Air (Vallejo) 021, Monogram ProModeler 88-0043, Niche 5909, Poly Scale 505055, Poly S 500086 and Tamiya XF27

Enamel

AeroMaster 9023, Floquil 303241, Humbrol 91, Model Master 2080 and Xtracolor X204

RLM 71 Dunkelgrün

Acrylic

AeroMaster 1024, Gunze Sangyo H64, Lifecolor UA052, Model Air (Vallejo) 015, Model Master 50193, Monogram ProModeler 88-0044, Niche 5910, Poly Scale 505056, Poly S 500087

Enamel

AeroMaster 9024, Floquil 303243, Humbrol 114, Model Master 2081 and Xtracolor X205

Note: Federal Standard (FS) numbers quoted are only to be taken as approximations, as the FS system did not exist when these colours were originally manufactured.





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Vol 9 : 6



Vol 9 : 7



Vol 9 : 8



Vol 9 : 9



Vol 9 : 10



Vol 9 : 11



Vol 9 : 12



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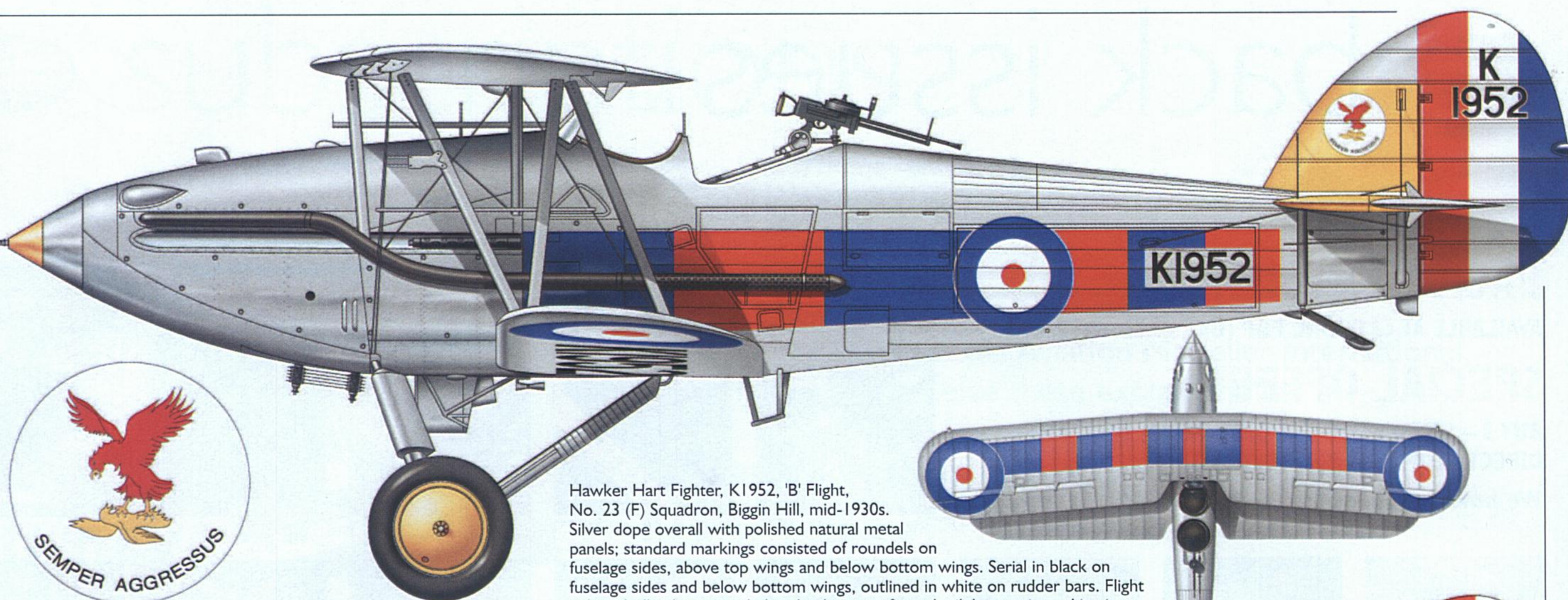
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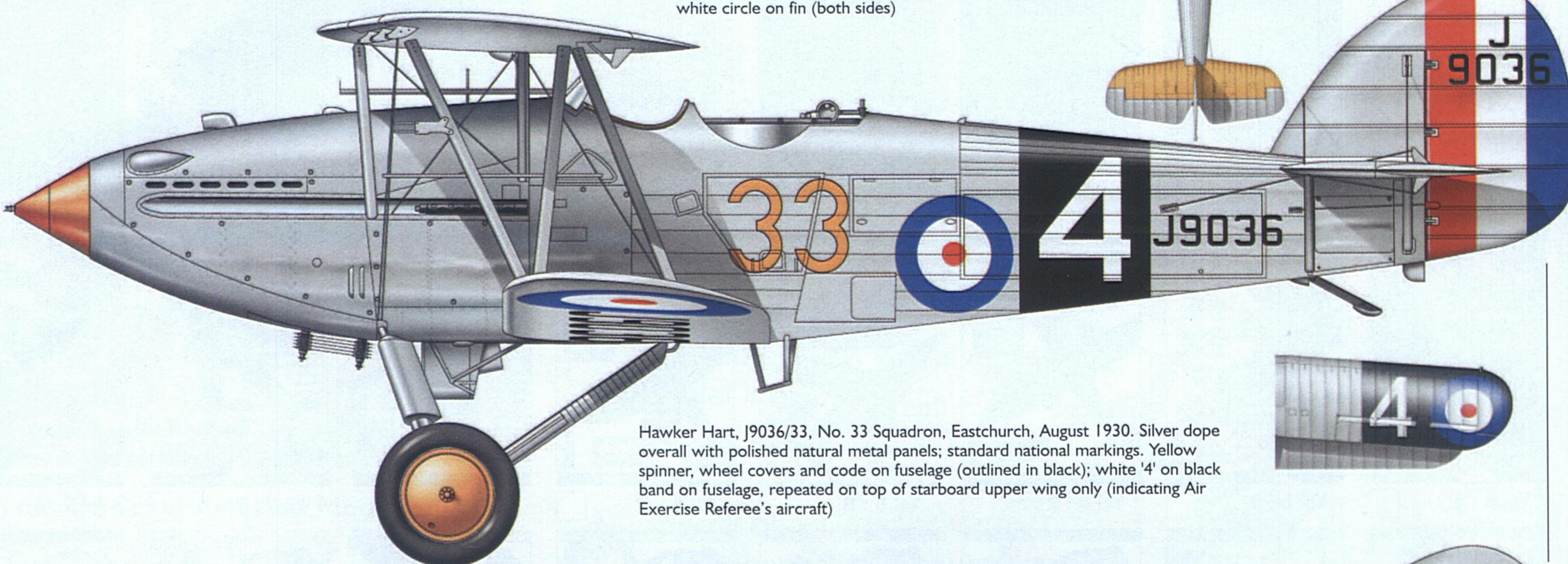
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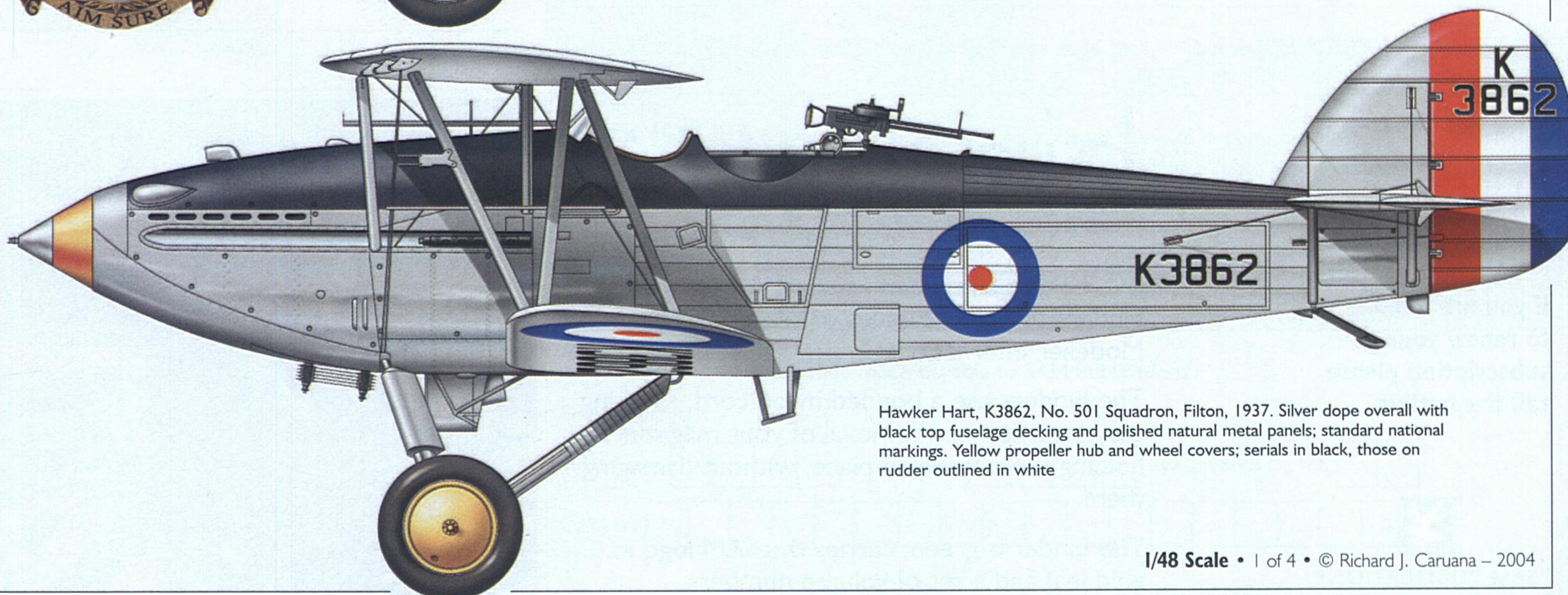
Hawker Hart Fighter, K1952, 'B' Flight, No. 23 (F) Squadron, Biggin Hill, mid-1930s. Silver dope overall with polished natural metal panels; standard markings consisted of roundels on fuselage sides, above top wings and below bottom wings. Serial in black on fuselage sides and below bottom wings, outlined in white on rudder bars. Flight colour (yellow) on prop hub, wheel covers, fin and tailplane; unit marking in a white circle on fin (both sides)



Hawker Hart, J9036/33, No. 33 Squadron, Eastchurch, August 1930. Silver dope overall with polished natural metal panels; standard national markings. Yellow spinner, wheel covers and code on fuselage (outlined in black); white '4' on black band on fuselage, repeated on top of starboard upper wing only (indicating Air Exercise Referee's aircraft)



Hawker Hart, K3900/XV, No. 15 Squadron, Abingdon, 1935. Silver dope overall with polished natural metal panels; standard national markings. 'XV' and serials in black; note Commanding Officer's pennant aft of gunner's cockpit and squadron crest on fin



Hawker Hart, K3862, No. 501 Squadron, Filton, 1937. Silver dope overall with black top fuselage decking and polished natural metal panels; standard national markings. Yellow propeller hub and wheel covers; serials in black, those on rudder outlined in white



The first production Hart, J9933, which went through a series of developments during its life. In October 1930 it was re-engined with a Kestrel II to serve as Demon prototype but eventually went to No. 33 Squadron in September 1932, and later served also with No. 18 (Hawker Siddeley Aviation)

The Hawker Hart

by Richard J. Caruana

Without any doubt, the Hawker Hart was the most significant technical step forward produced by the British aviation industry during the 'peaceful' period between the two world wars. It was also the most important tactical advancement made by the Royal Air Force ahead of the Expansion Scheme of 1936. Richard J. Caruana takes a close look at this elegant biplane and its colourful history.

Reflecting on the situation within the British aviation industry during the immediate post-World War One era, one cannot fail to notice the apathy and economic instability that officialdom posed on aircraft development. Reliance on wartime aircraft had been stretched to the limit, and even beyond obsolescence in some cases while the aero-engine industry was practically in hibernation. Although designers were eager to explore and develop new techniques, new aircraft designs and better engines, finance for such projects was just not available.

Operating with the meagre budgets on offer, Sydney Camm of H.G. Hawker Engineering Co. slowly progressed through a series of interesting and innovative projects such as the Hornbill and Heron of 1925. Of these, the former was of particular importance as the designer had built the smallest possible airframe around a powerful water-cooled in-line engine. Though the Heron

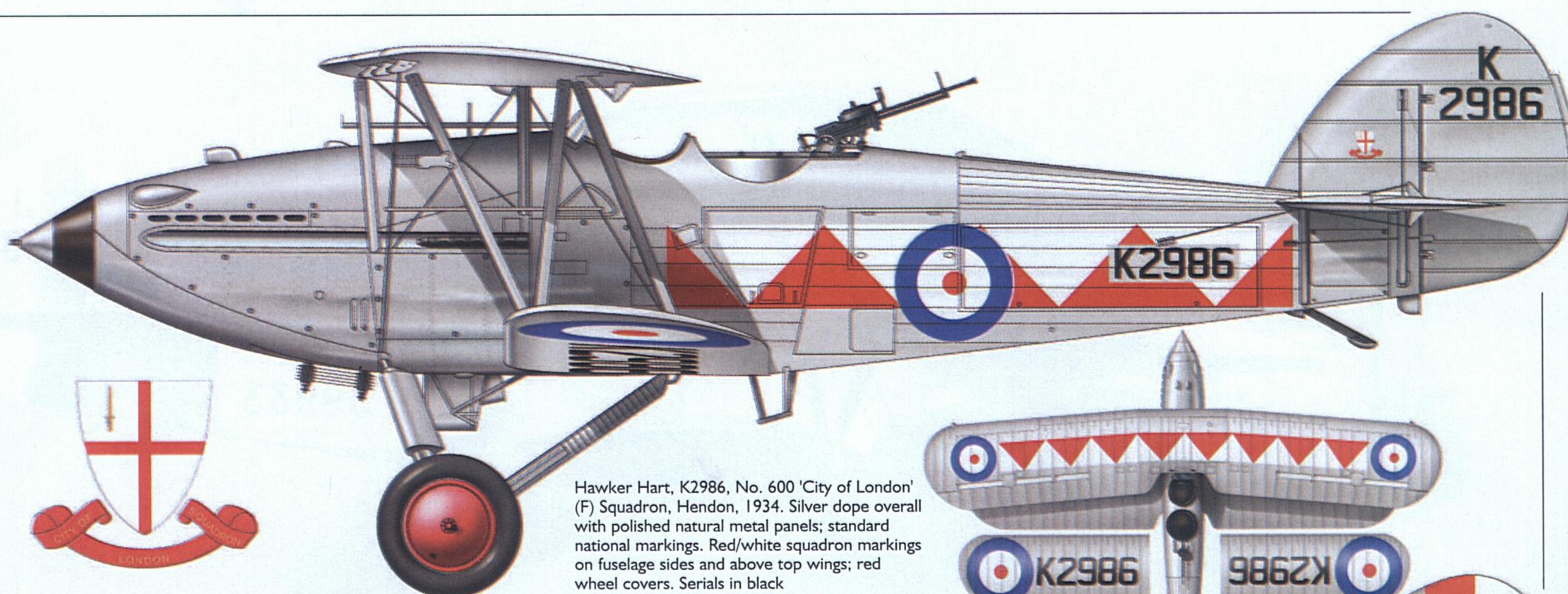
was powered by the more conventional Jupiter radial, it introduced a metal fuselage primary structure developed by F Sigrist, Director-colleague of Sir Thomas Sopwith.

Through these and other fighter projects, Camm's conviction regarding the future of the water-cooled in-line engine gained ground and in 1926 he sought the assistance of Rolls-Royce whilst working on Air Ministry Specification 12/26 calling for a light bomber. It is important to mention here that this specification required the new aircraft to enter service in 1930. The timing was more dependent on the British Treasury's Ten Year Rule rather than foresight or the Royal Air Force's (RAF) service requirements!

Rolls-Royce responded by developing its Falcon F.I into the F.XIA, differing principally in having one-piece cast cylinder banks. On its part, Hawker progressed with its project under great secrecy, such was the cut-throat competition during that era. Through its two

years of design development and prototype construction, Camm ensured that every sensible innovation that could be introduced into his design would be seriously considered, evaluated, tested and installed if found to be advantageous. Finally, J9052 was ready for its first flight by Flt Lt P.W.S. 'George' Bulman in June 1928, followed by a six-month trial period at the Aeroplane and Armament Experimental Establishment (A&AEE) at Martlesham Heath. These, too, were conducted under a veil of strict security as it was not until a year later that Hawker's light bomber was publicly displayed at the Olympia Aero Show alongside the Hornet fighter and Tomtit trainer from the same stable.

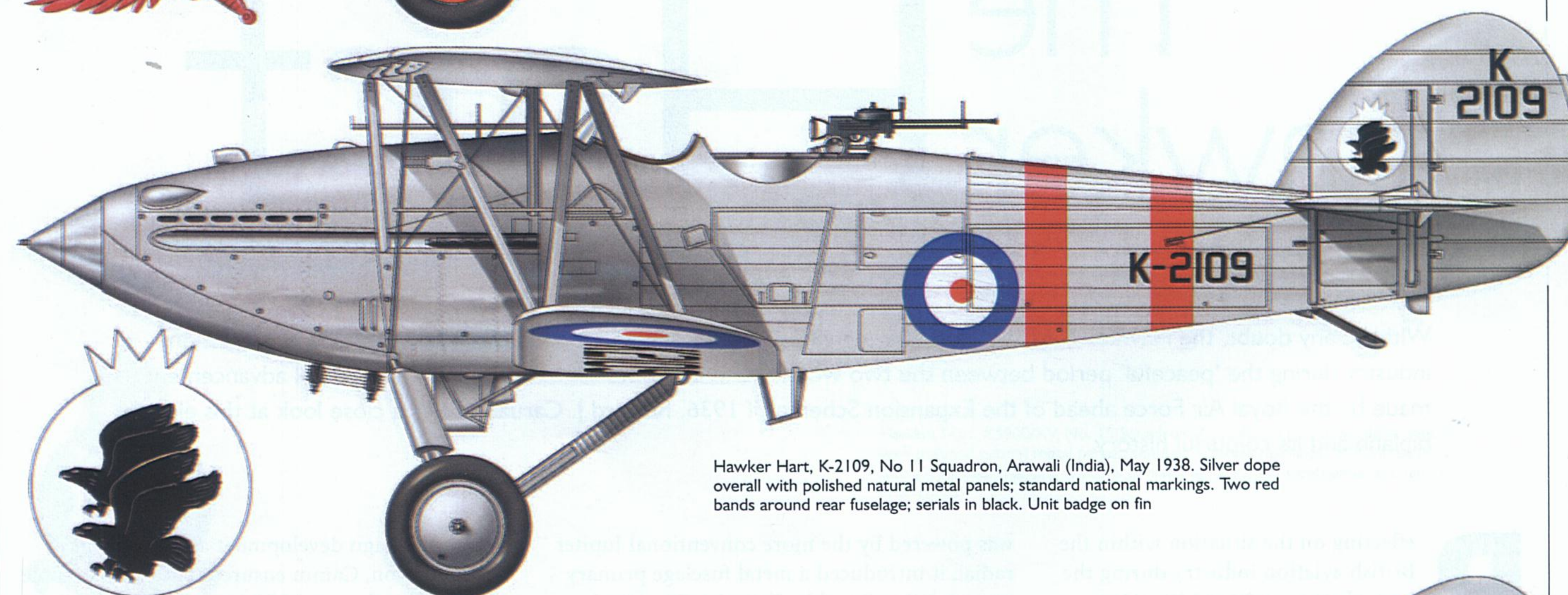
During competitive trials, the Hart (as it was now officially named) not only confirmed its superiority over the Fairey Fox II (J9834) and Avro Antelope (J9183) which were being offered under the same specification, but also put into obsolescence any fighter aircraft the RAF had on its inventory! It was clear that Hawker's light



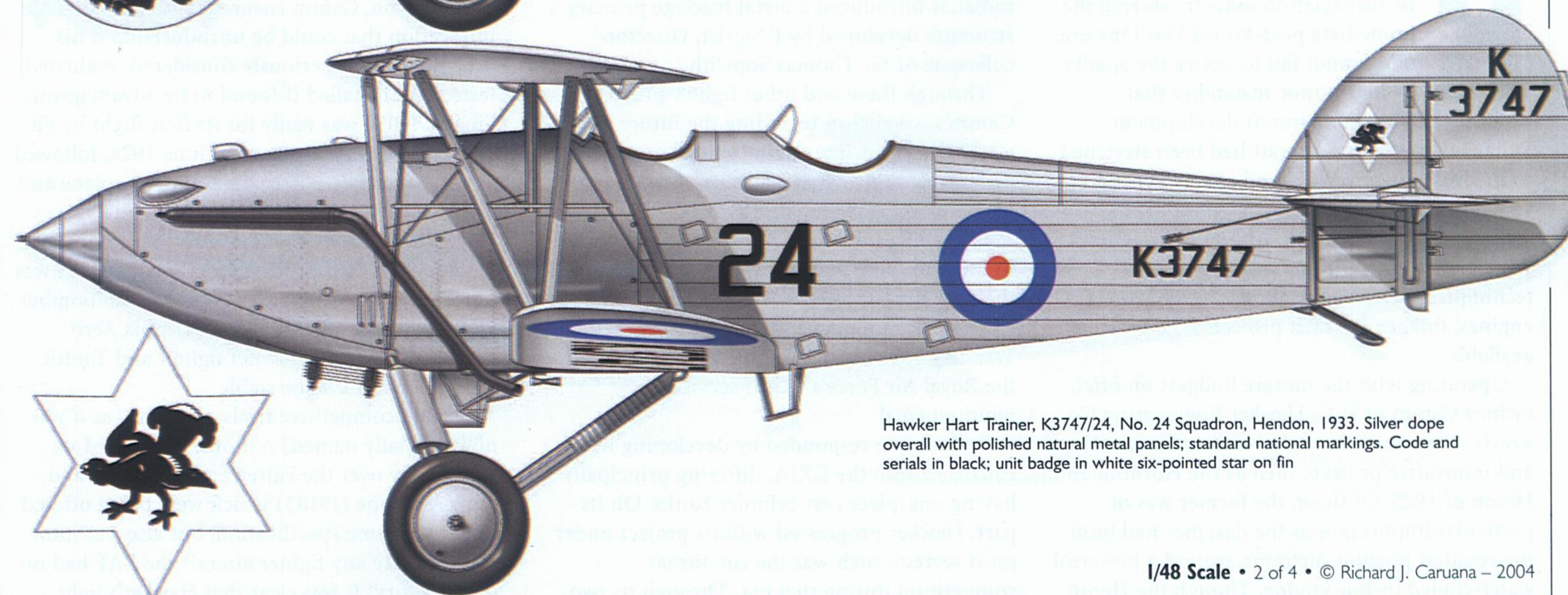
Hawker Hart, K2986, No. 600 'City of London' (F) Squadron, Hendon, 1934. Silver dope overall with polished natural metal panels; standard national markings. Red/white squadron markings on fuselage sides and above top wings; red wheel covers. Serials in black



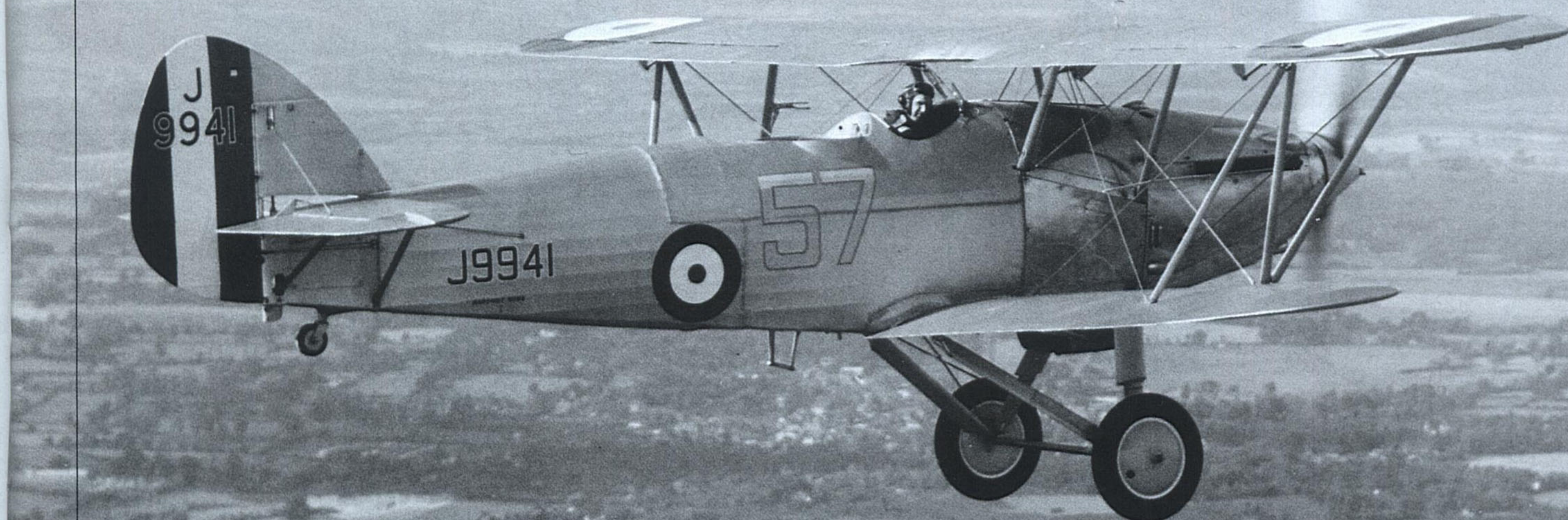
Hawker Hart, K2978, 'A' Flight, No. 601 'County of London (F) Squadron, Hendon, 1934. Silver dope overall with polished natural metal panels; standard national markings. Red/black squadron markings on fuselage sides and above top wing; serials in black, with those on rudder outlined in white. Red wheel covers



Hawker Hart, K-2109, No. 11 Squadron, Arawali (India), May 1938. Silver dope overall with polished natural metal panels; standard national markings. Two red bands around rear fuselage; serials in black. Unit badge on fin



Hawker Hart Trainer, K3747/24, No. 24 Squadron, Hendon, 1933. Silver dope overall with polished natural metal panels; standard national markings. Code and serials in black; unit badge in white six-pointed star on fin



Hawker's own G-ABMR after being repainted to represent J9941 of No. 57 Squadron. It is now preserved in the RAF Museum, Hendon (Hawker Siddeley Aviation)

bomber heralded a new era in technical standards that paved the way for future projects. An initial production order for 15 development aircraft (J9933-J9947) was issued under Specification 9/29.

The Hart Described

Air Publication 1404A (Volume I) describes the Hart as "a two-seater biplane, high-performance day bomber, fitted with a Kestrel I.B non-supercharged engine of 510hp or Kestrel X (derated) engine of 510hp".

The aircraft was of metal construction, fabric-covered, and both steel and duralumin were used in the structure. The front or pilot's cockpit housed a complete set of instruments typical of the period mounted on the board under the decking and the pilot could adjust the height of his seat even in flight by the operation of a lever attached to the starboard side of the seat. A Vickers .303in gun was mounted on the port side of the front cockpit, synchronised to fire through the propeller arc. The trigger for this gun was mounted on the spade grip of the control column. Bomb release levers were positioned on the starboard side of the pilot's cockpit. Wireless instruments were accommodated in the rear cockpit together with a Lewis gun and magazines, chart boards, duplicate bomb release gear and course setting bombsight. For bombing duties, the air-gunner moved down to the prone position and opened a sliding door in the fuselage floor for downward view. Communication between pilot and air-gunner was through the use of speaking tubes.

The fuselage was made up of four main sections, of all-metal construction except for the fairing around the cockpits which was of wood. The foremost section consisted of the engine mount right up to the engine firewall, the mount being completely detachable from the rest of the fuselage. Between bulkheads AB and GH was the centre portion built up of steel

tubing for the main members and duralumin for secondary items. An opening in the floor just aft of the firewall housed the radiator and its retraction gear while the first bay supported the main fuel tank on the top longeron and the oil tank between the diagonal side struts. The second bay contained the pilot's cockpit and controls while the third bay contained the air-gunner's cockpit with the cowling on top of it supporting the Lewis gun mounting. The front section and the forward section of the second section were covered in aluminium panels back to frame CD with an additional panel on the port side extending nearly to frame EF. Cowling panels on the port side were provided with blast troughs for the fixed Vickers gun. The upper decking of this section aft of the cowling was covered in three-ply spruce.

"...Hawker's light bomber heralded a new era in technical standards that paved the way for future projects..."

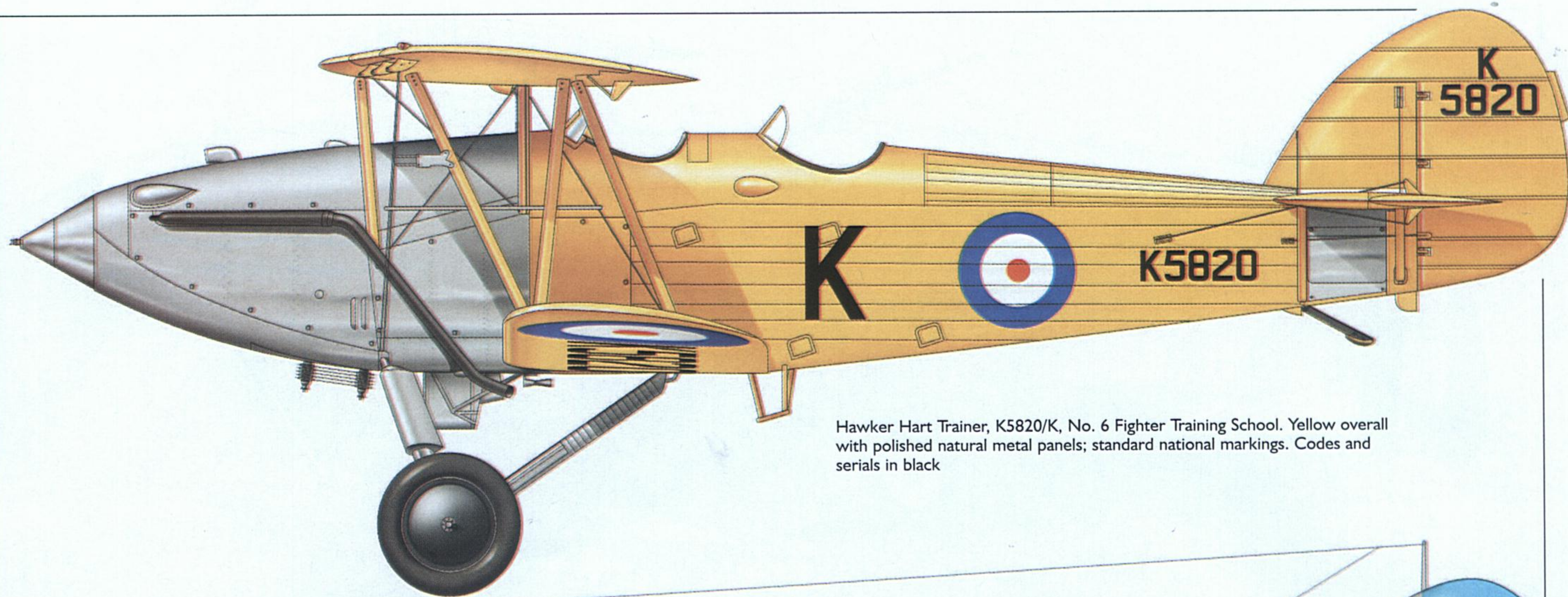
Then came the rear portion that extended between bulkheads GH and PQ, consisting of the rear fuselage built from continuous tubular steel longerons with side bracing of duralumin tube arranged as an N-girder. It included space for a service camera in its forward section and the tail skid structure at its rear end. A ballast carrier tube was positioned at joint M, able to carry three AGS 670 weights on either side. The fourth section consisted of the stern frame, built as a separate assembly. Its rear bushes received the sternpost and the tailplane elevating jack, the former having an auxiliary skid fitted to protect that part of the fuselage should the normal tail skid fail. The entire fuselage was fabric covered except for the aluminium cowling panels.

The mainwheel undercarriage was of the through-axle type with oleo strut to joint B and radius rods to joint F, cross-braced with streamline wires. Pattern 'A' wheels, 800mm x

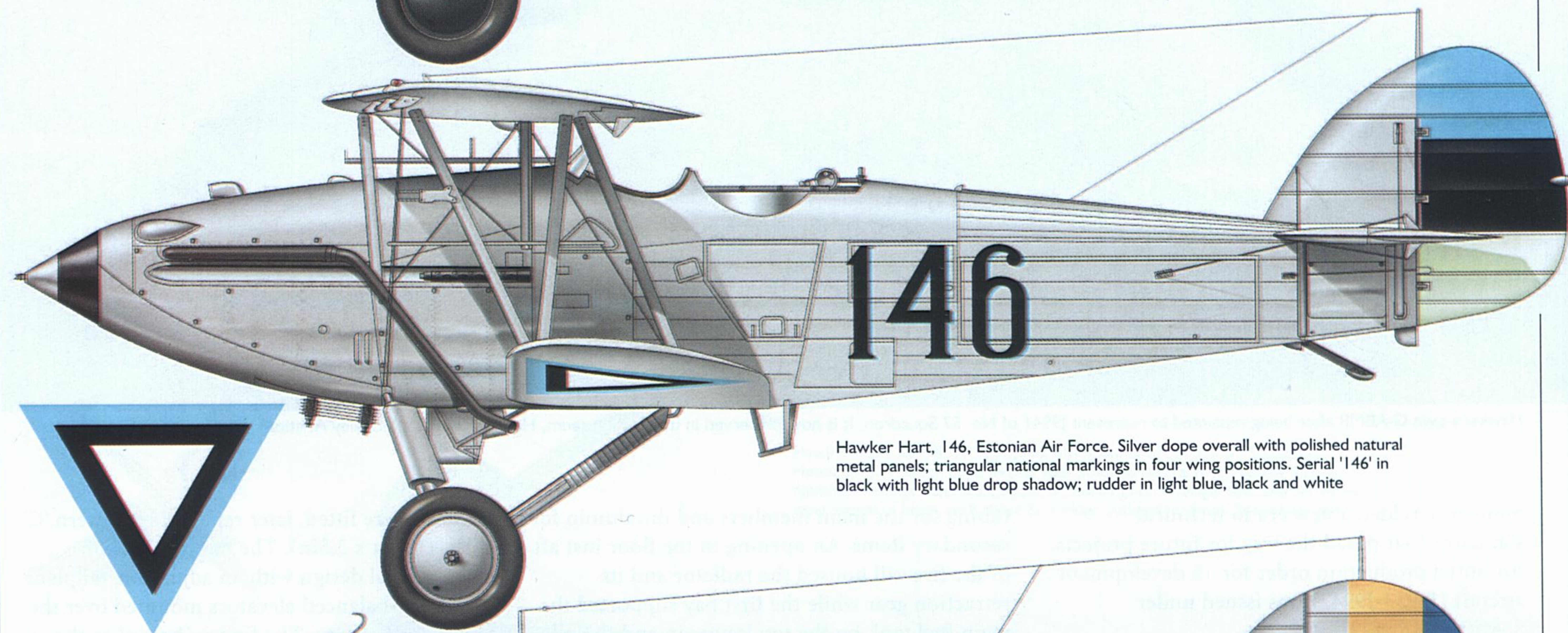
150mm, were fitted, later replaced by Pattern 'C' wheels (19in x 3.5in). The tail unit was of conventional design with an adjustable tailplane with horn-balanced elevators mounted over the top of the fuselage. The fin was braced to the rear tailplane spar and the corners of the rear decking plate. The rudder was also horn-balanced.

The single-bay main-planes of the Hart were of RAF 28 profile throughout, wire-braced biplane type, struts being employed for the outer incidence bracing. A considerable degree of stagger was employed and the top planes were slightly swept back from the centre section plane to which they were attached. Struts attached to joints A and C in the fuselage supported the top wing which incorporated a gravity fuel tank in the starboard half of the centre section, the

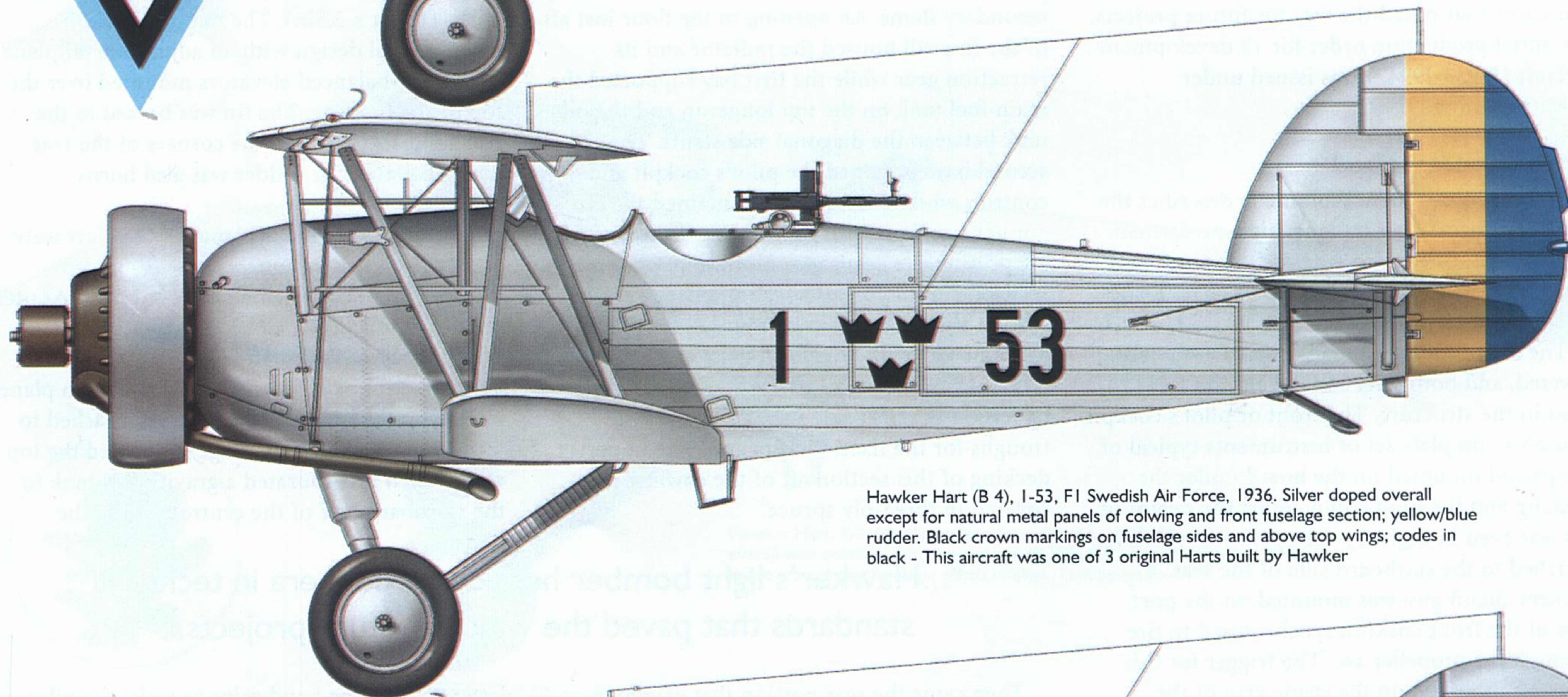
latter also having hand grips to assist the pilot in leaving the cockpit. The top mainplanes were swept back 5° from the centre section, built on two spars of high tensile steel strip to which 17 ribs built up from duralumin sections were attached by pierced rivets. Auto slots, 6ft long were attached to each top wing, each supported on three brackets, while ailerons were of the Frise type. The lower wing was of smaller chord and had no sweepback. It was similarly built up on two spars and same number of ribs as for the top wing. The structure consisted of four drag panels, both port and starboard lower wings arranged to carry a load of bombs. Both top and bottom wings, together with the top centre section, were fabric-covered, the fabric being strung to the top and bottom rib flanges. Tear-off patches were provided at all drag bracing fittings and inspection doors for access to the aileron control cable joints.



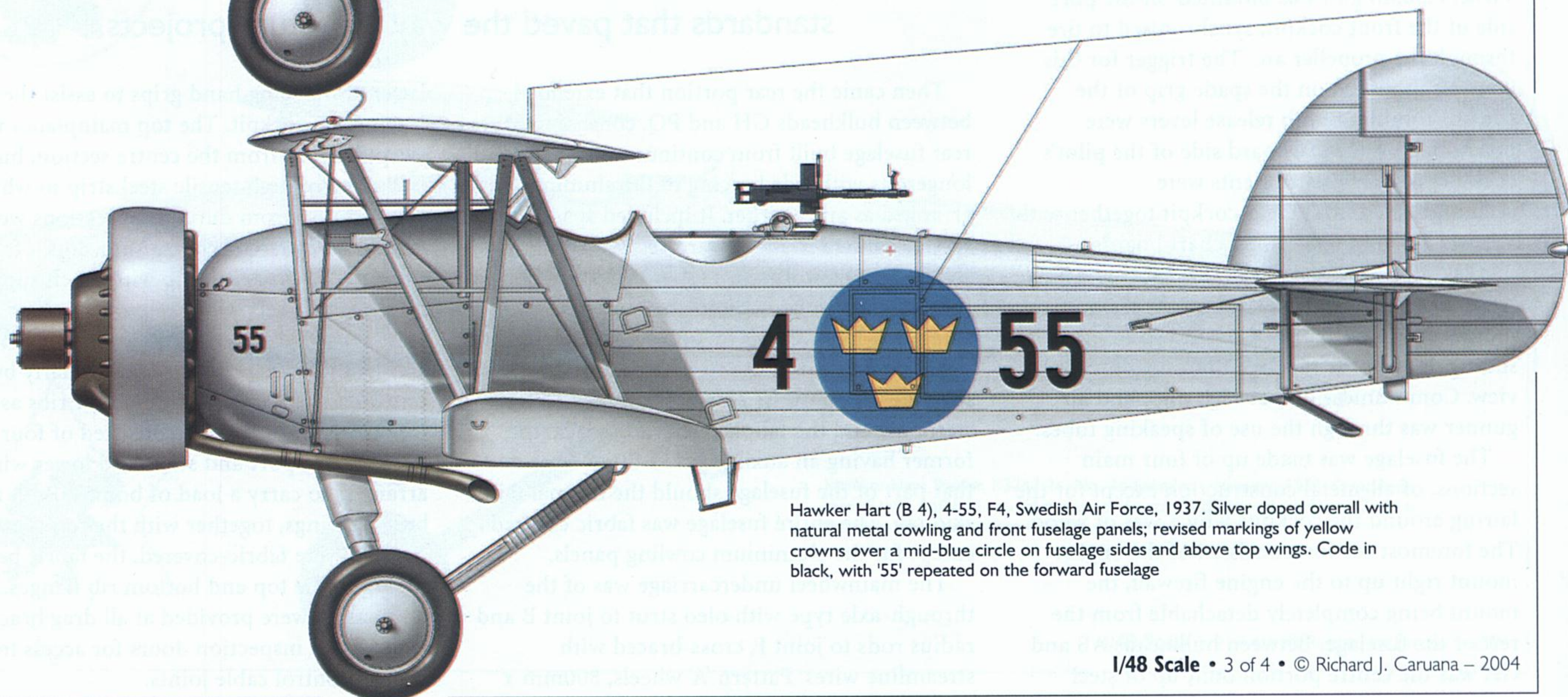
Hawker Hart Trainer, K5820/K, No. 6 Fighter Training School. Yellow overall with polished natural metal panels; standard national markings. Codes and serials in black



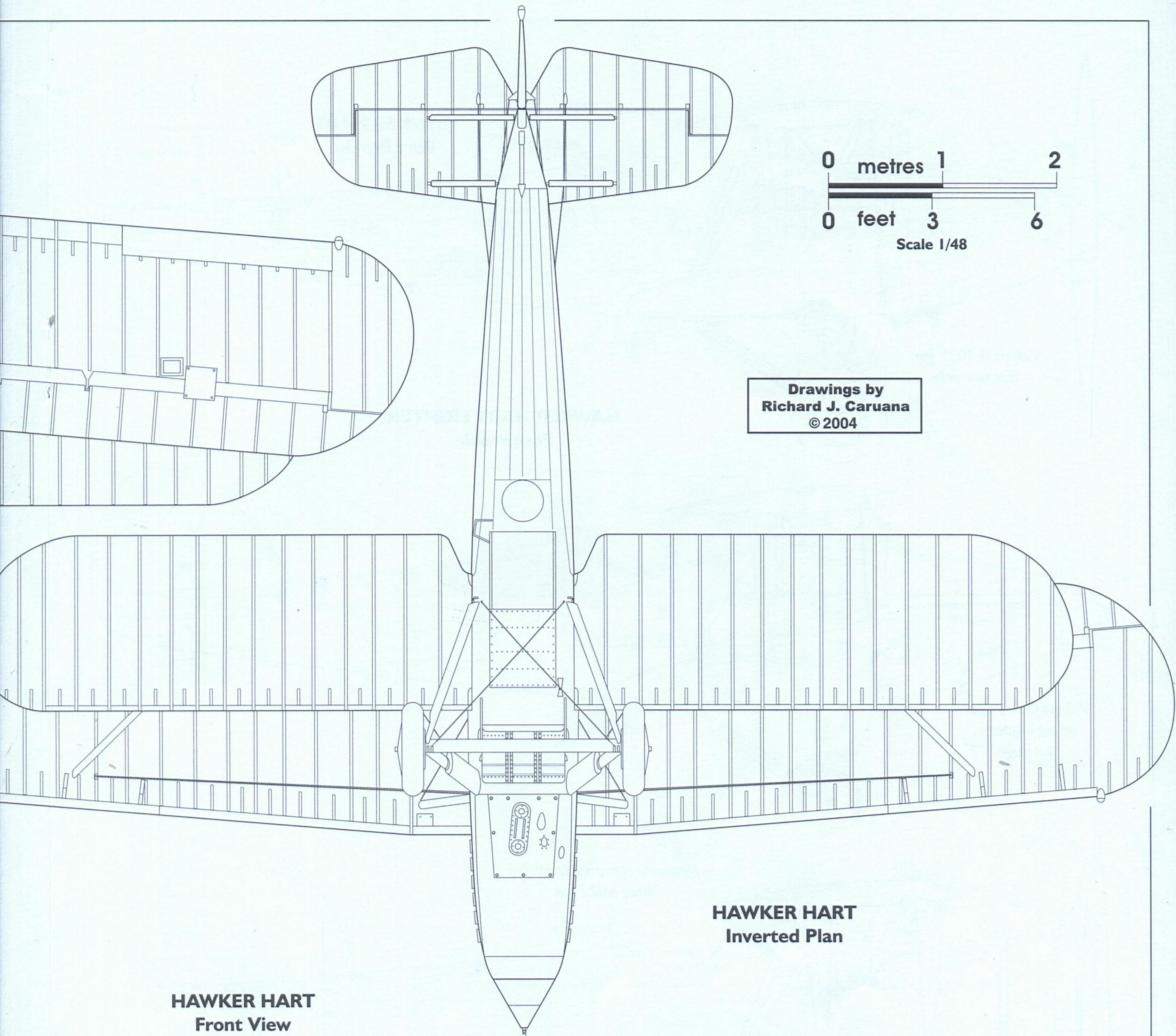
Hawker Hart, 146, Estonian Air Force. Silver dope overall with polished natural metal panels; triangular national markings in four wing positions. Serial '146' in black with light blue drop shadow; rudder in light blue, black and white



Hawker Hart (B 4), 1-53, FI Swedish Air Force, 1936. Silver doped overall except for natural metal panels of cowling and front fuselage section; yellow/blue rudder. Black crown markings on fuselage sides and above top wings; codes in black - This aircraft was one of 3 original Harts built by Hawker



Hawker Hart (B 4), 4-55, F4, Swedish Air Force, 1937. Silver doped overall with natural metal cowling and front fuselage panels; revised markings of yellow crowns over a mid-blue circle on fuselage sides and above top wings. Code in black, with '55' repeated on the forward fuselage

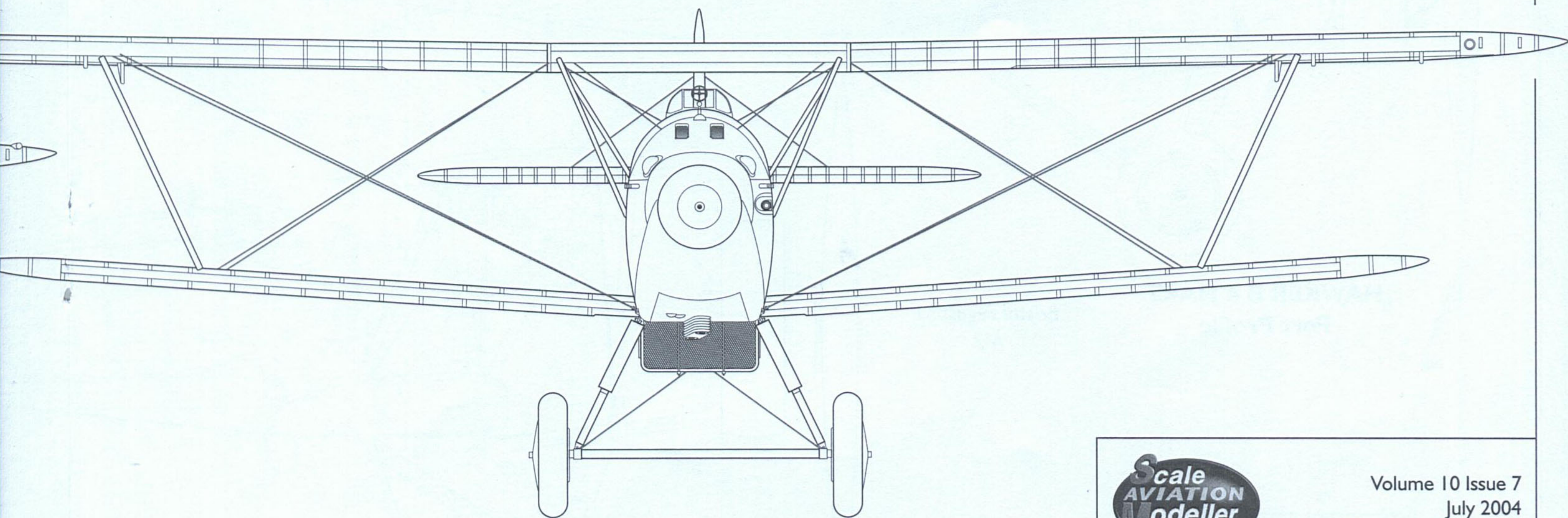


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 Scale 1/48

Drawings by
 Richard J. Caruana
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HAWKER HART
 Front View

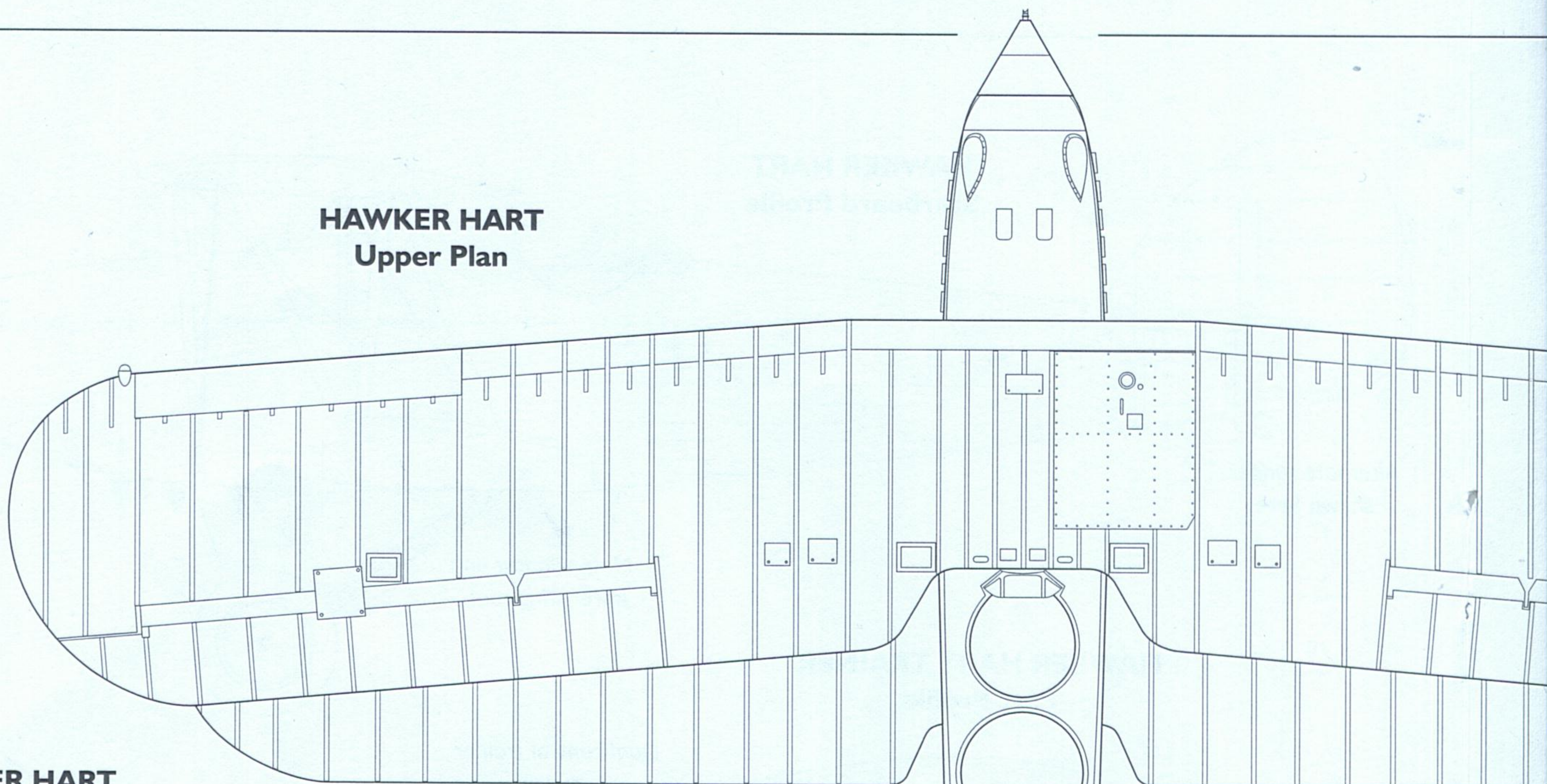
HAWKER HART
 Inverted Plan



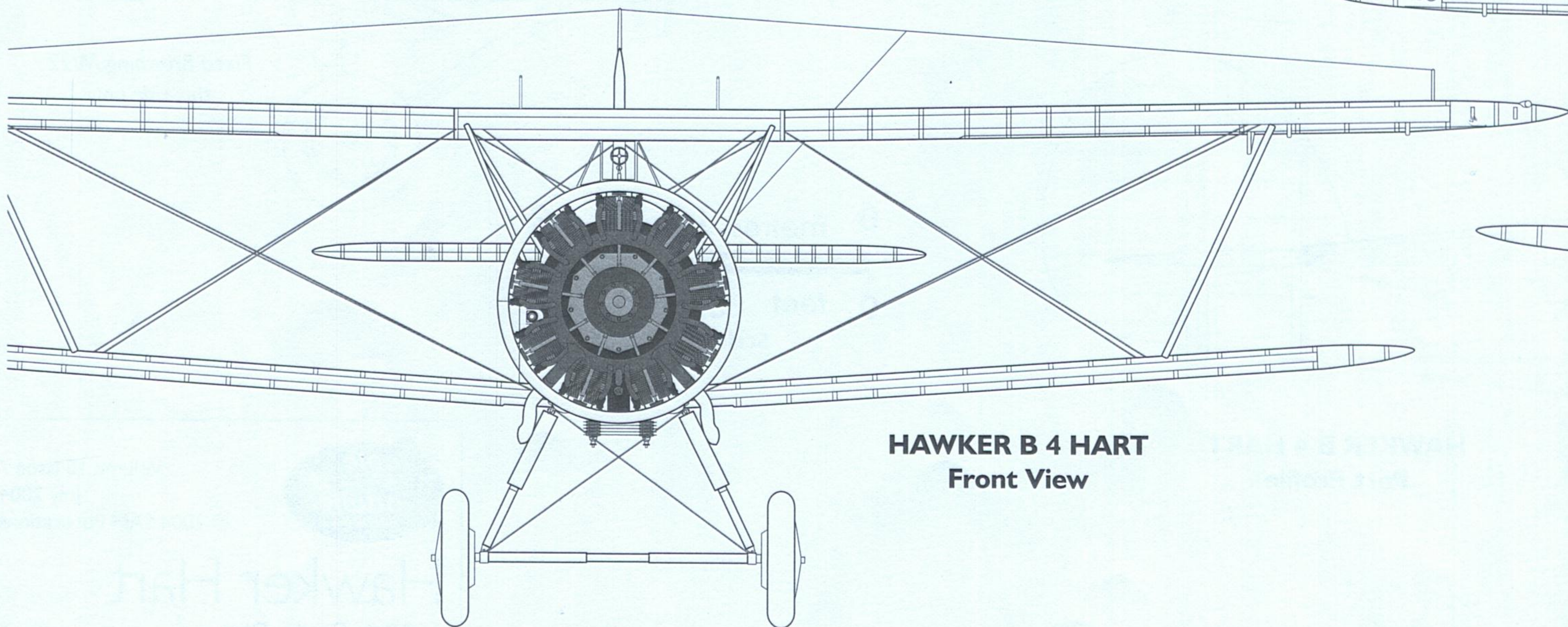
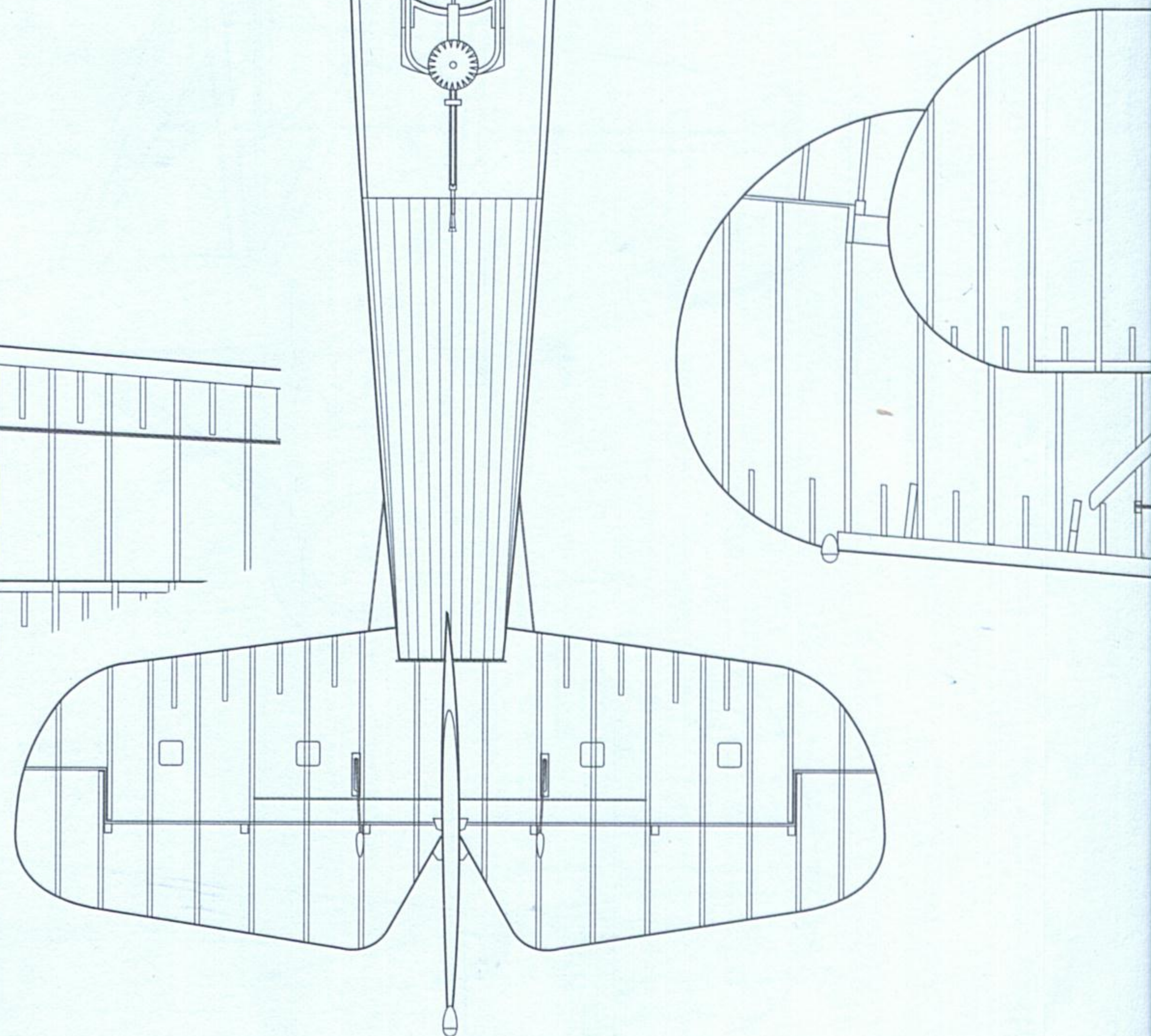
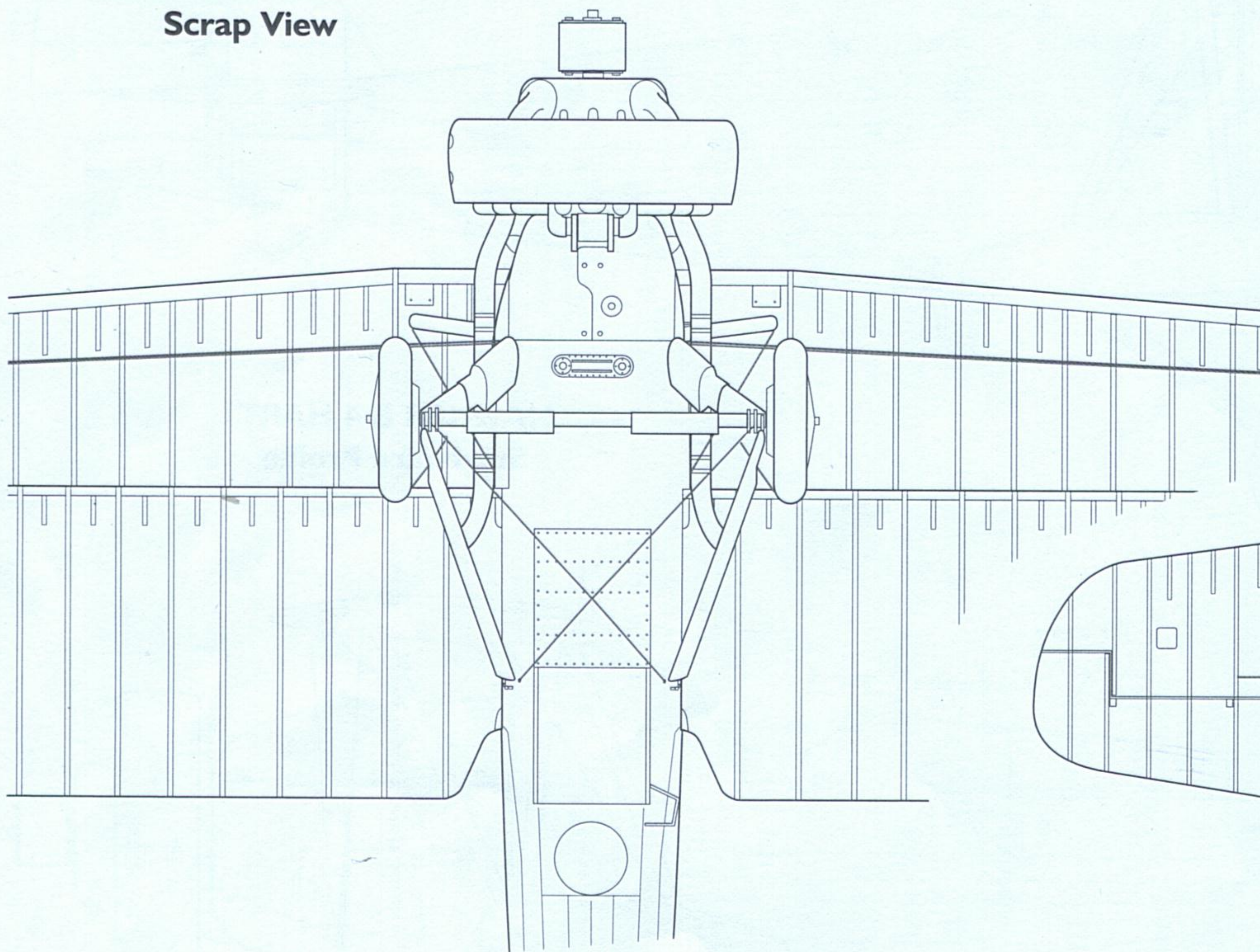
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Hawker Hart
 1/48th Scale Plans

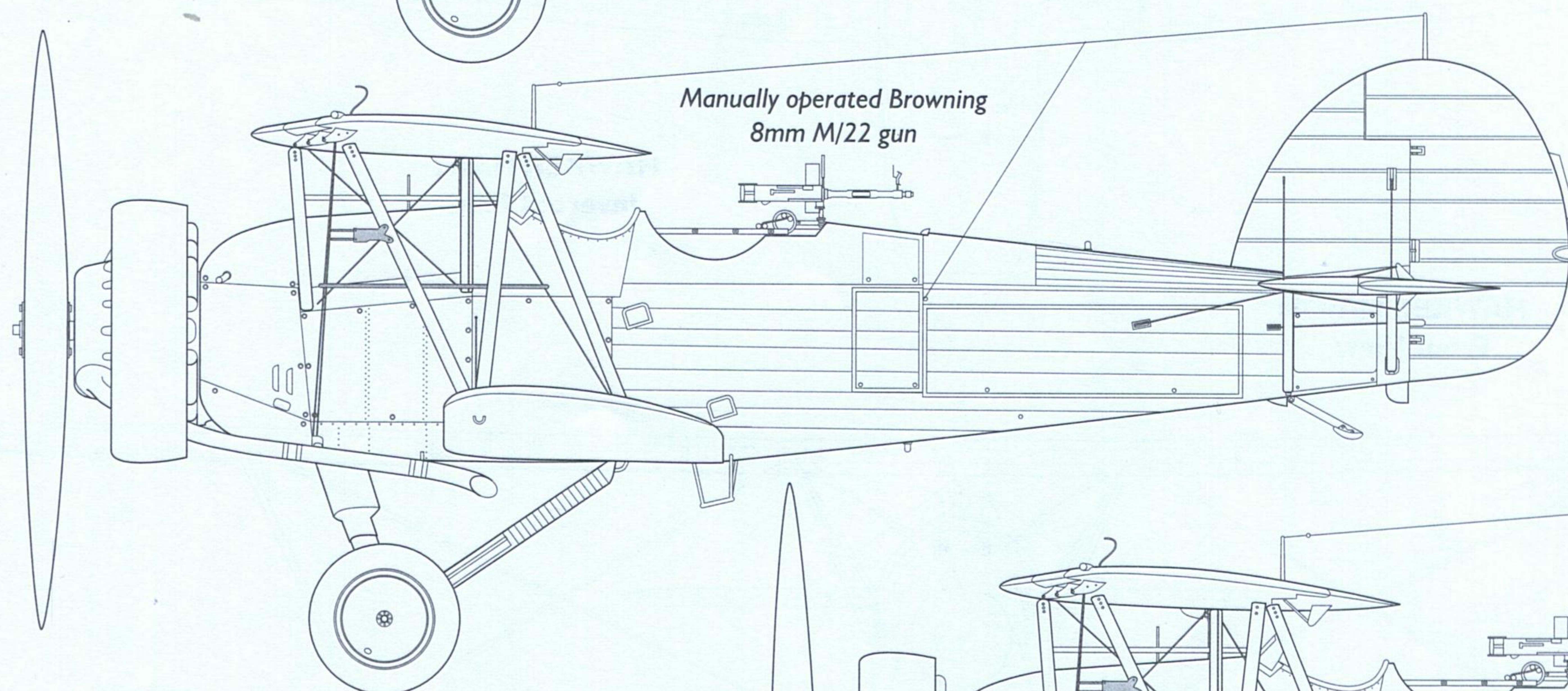
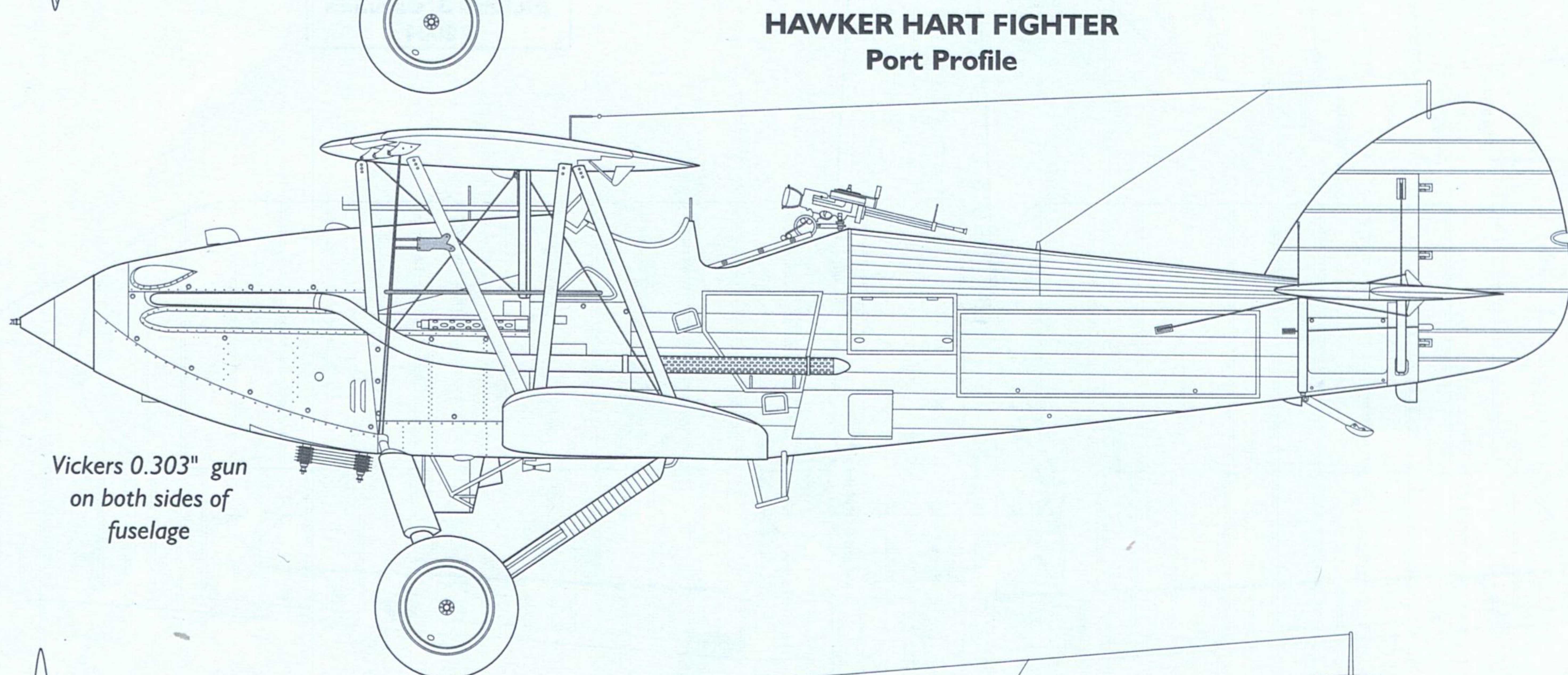
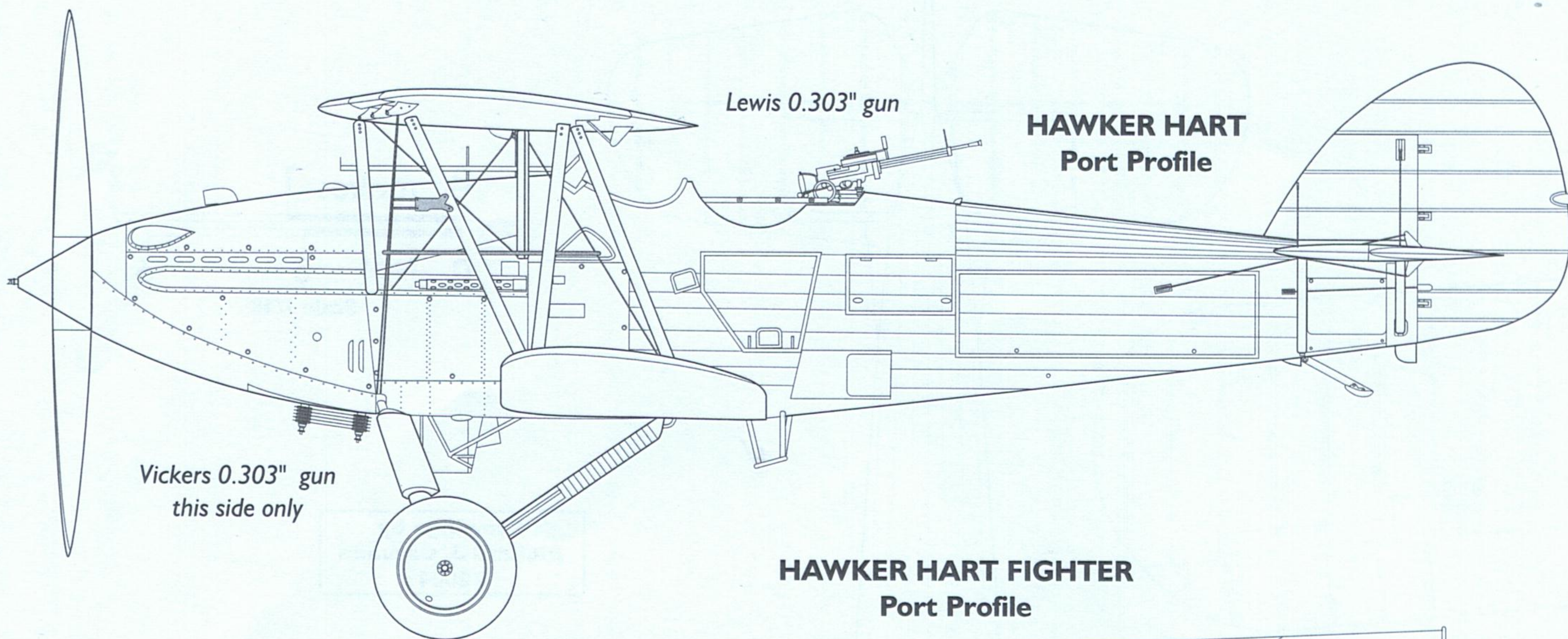
HAWKER HART
Upper Plan



HAWKER HART
Inverted Plan
Scrap View



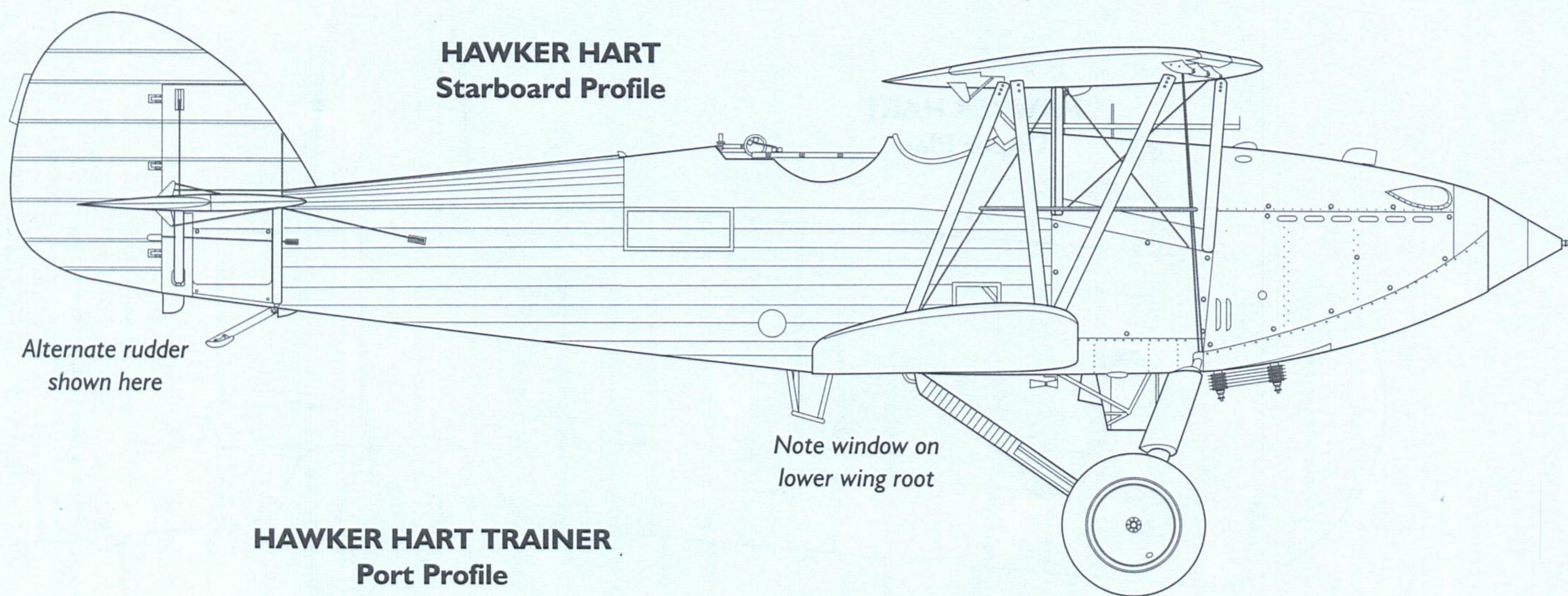
HAWKER B 4 HART
Front View



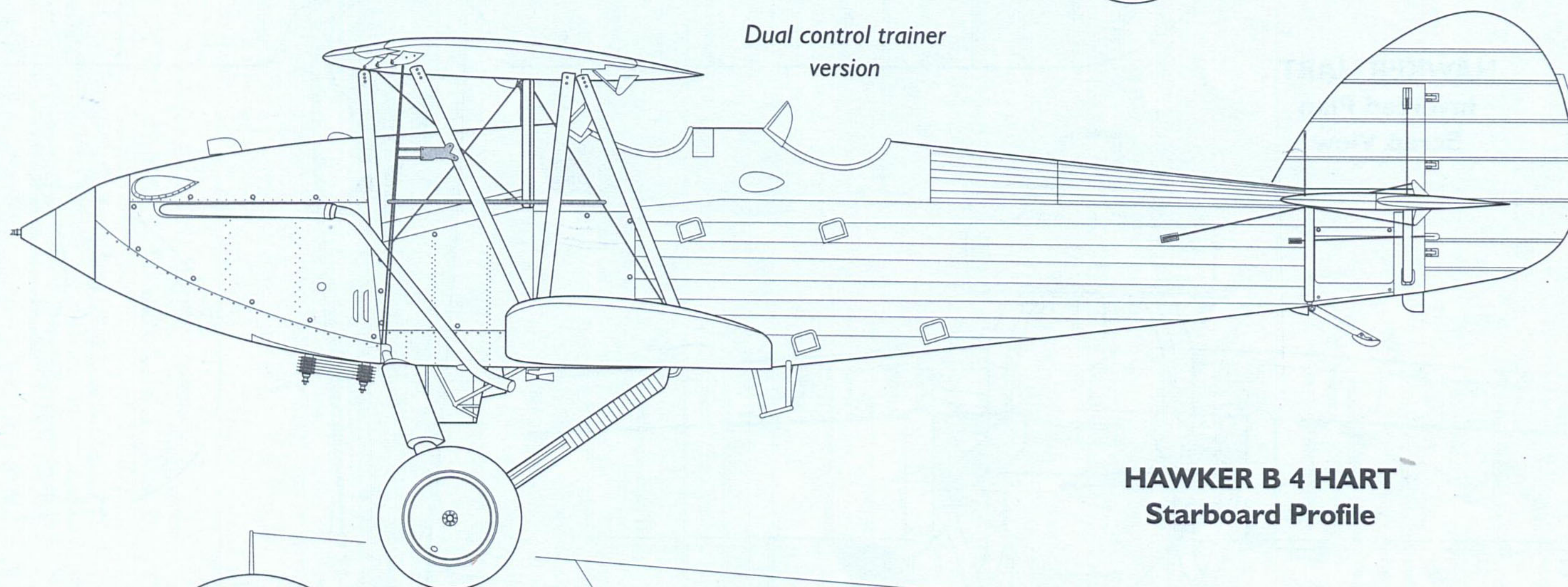
Bristol Pegasus I
M2

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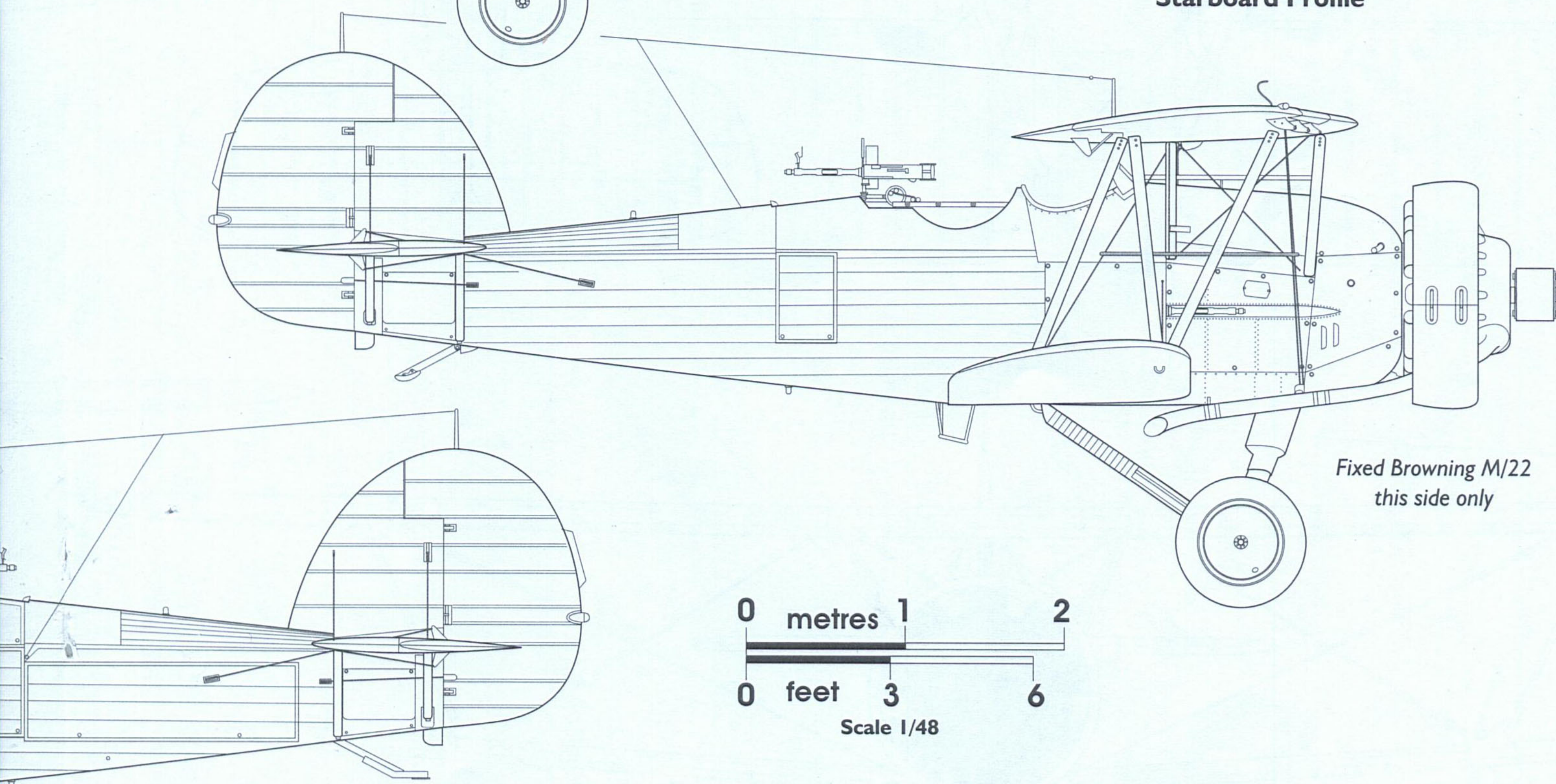
HAWKER HART
Starboard Profile



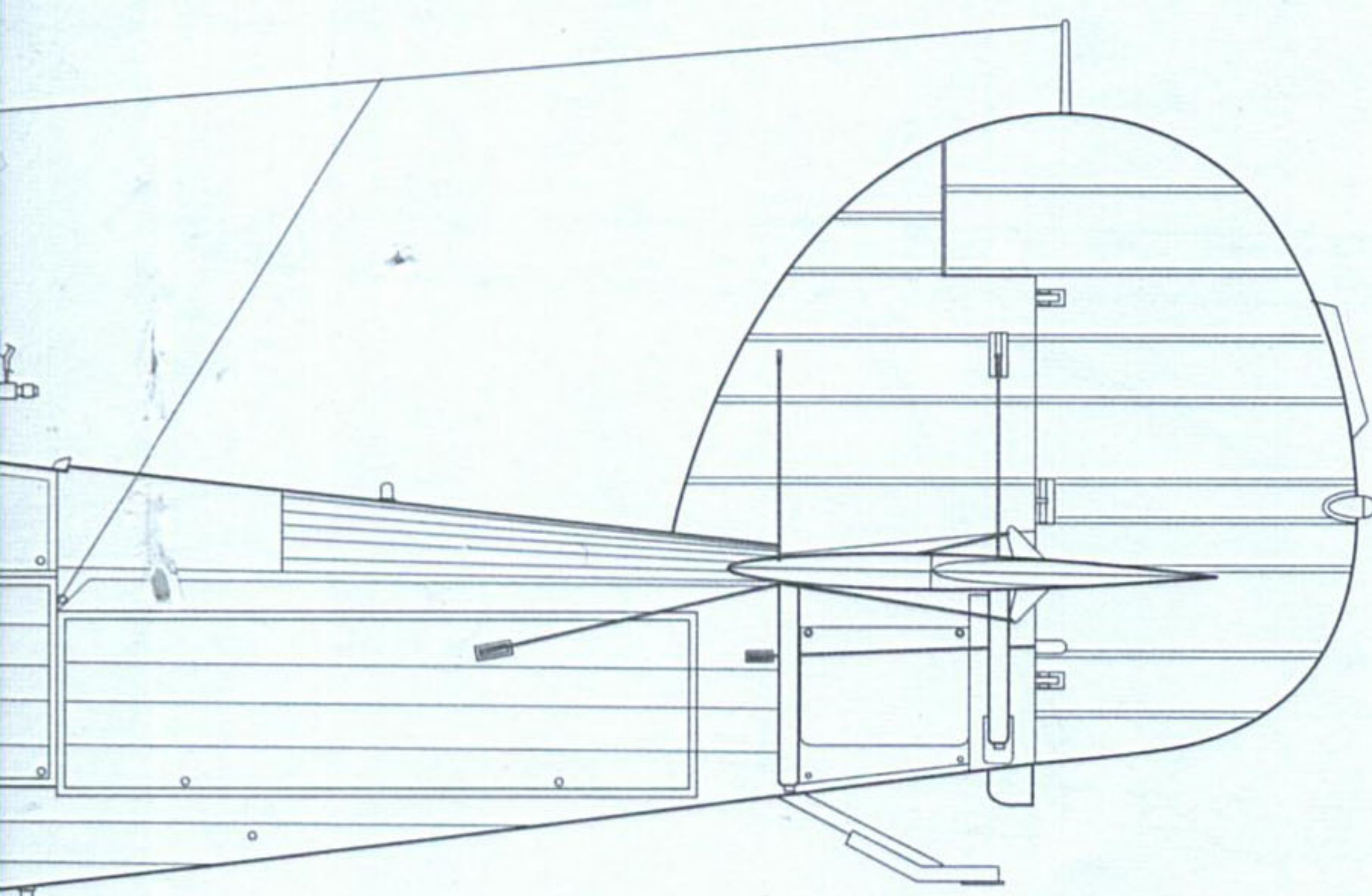
HAWKER HART TRAINER
Port Profile

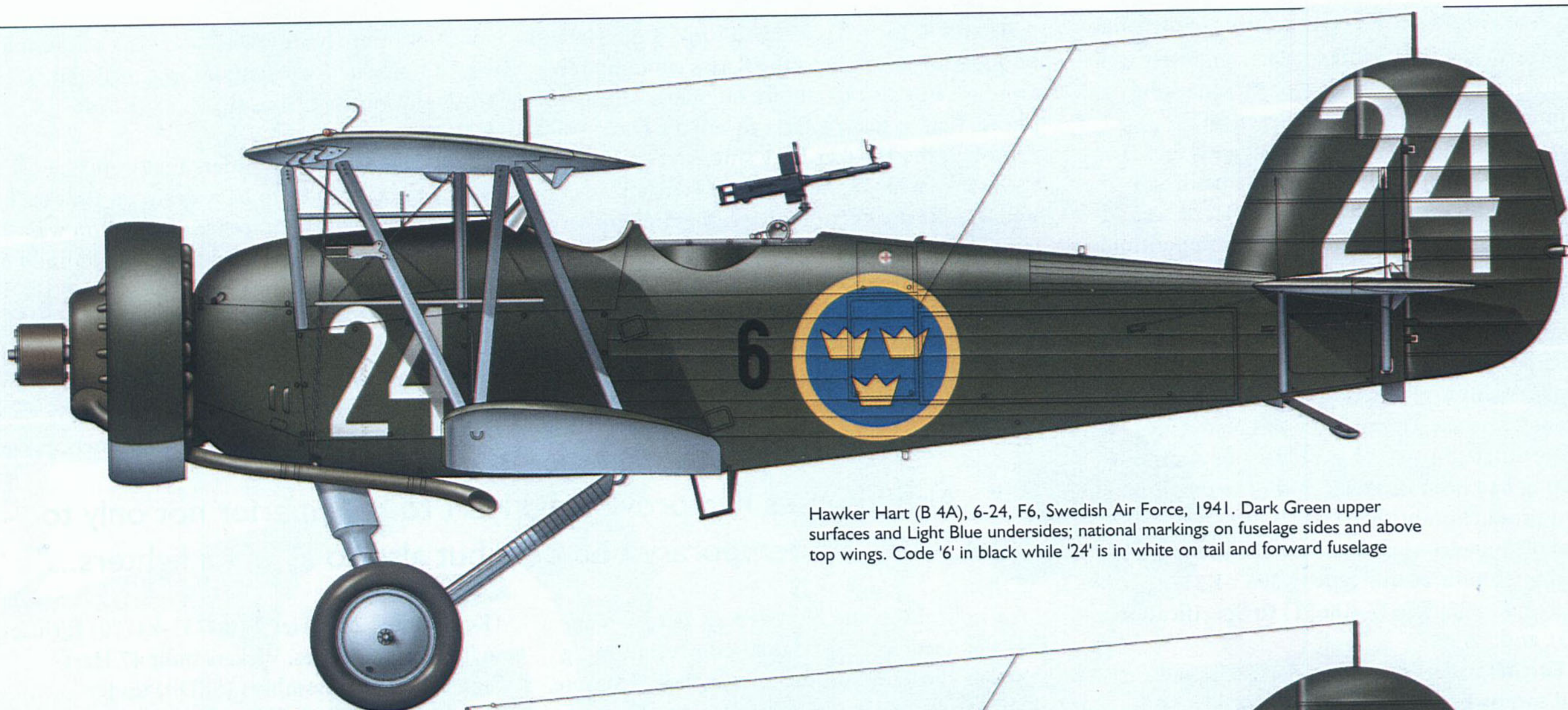


HAWKER B 4 HART
Starboard Profile



HAWKER B 4 HART
Port Profile

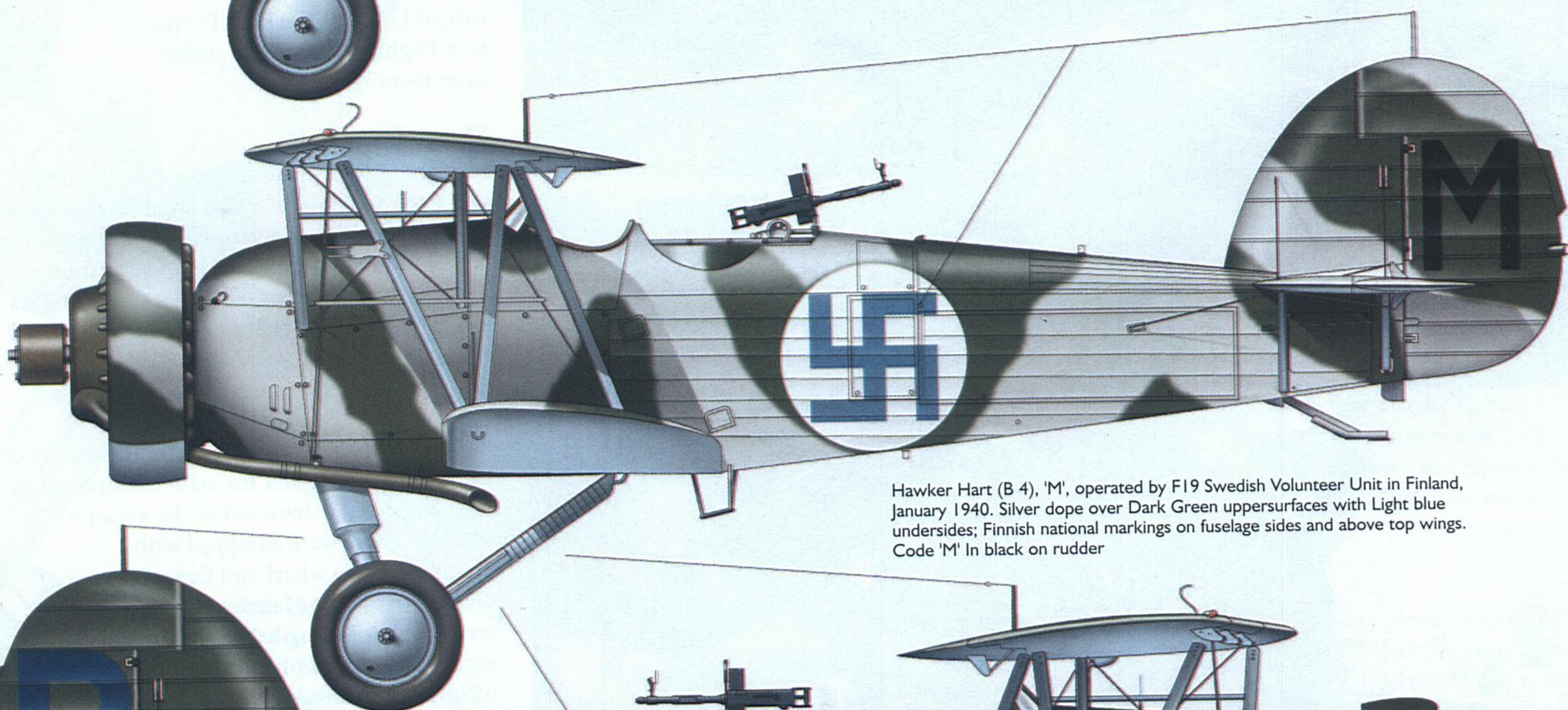




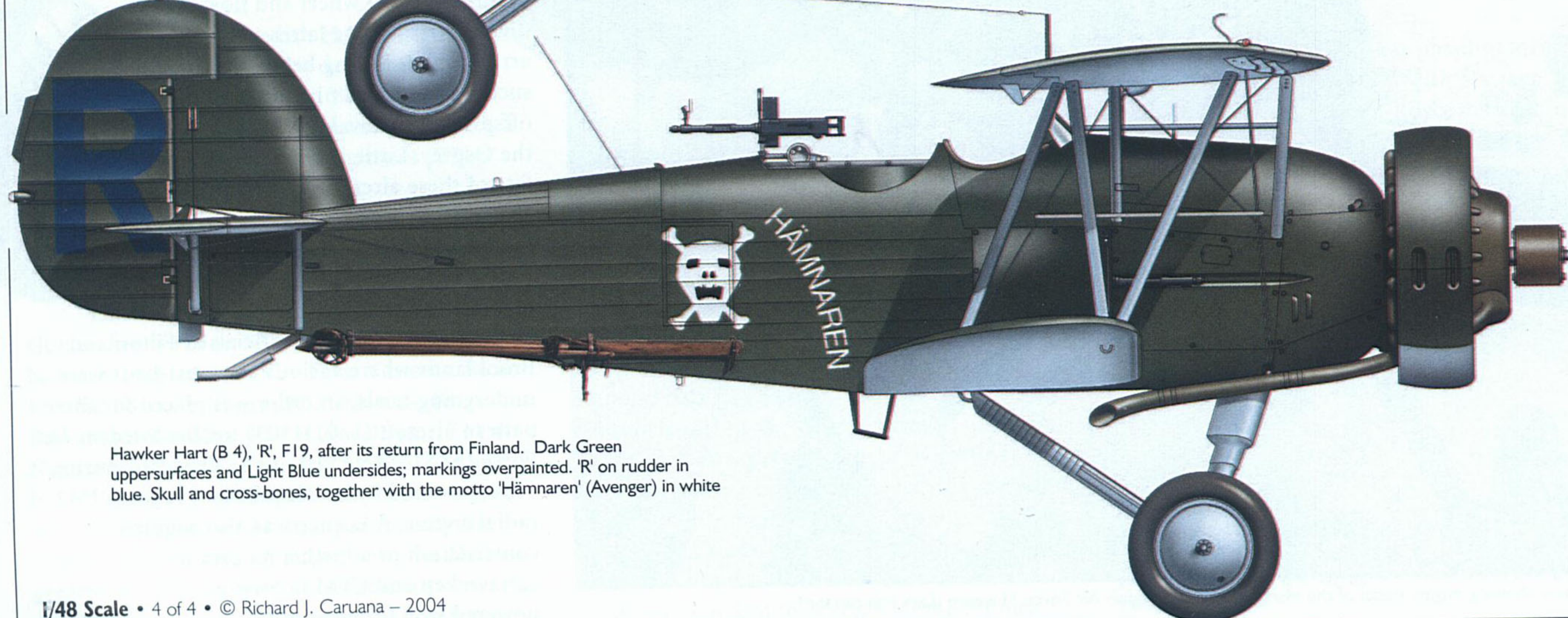
Hawker Hart (B 4A), 6-24, F6, Swedish Air Force, 1941. Dark Green upper surfaces and Light Blue undersides; national markings on fuselage sides and above top wings. Code '6' in black while '24' is in white on tail and forward fuselage



Hawker Hart (B 4), 4-27, flown by the commander of F4, Swedish Air Force, 1938. Dark Green upper surfaces and Light Blue undersides; codes in black. National markings on fuselage sides and above wings; the three bands around the rear fuselage indicate the 1st, 2nd and 3rd Division of Flottila 4



Hawker Hart (B 4), 'M', operated by F19 Swedish Volunteer Unit in Finland, January 1940. Silver dope over Dark Green upper surfaces with Light blue undersides; Finnish national markings on fuselage sides and above top wings. Code 'M' in black on rudder



Hawker Hart (B 4), 'R', F19, after its return from Finland. Dark Green upper surfaces and Light Blue undersides; markings overpainted. 'R' on rudder in blue. Skull and cross-bones, together with the motto 'Hämnaren' (Avenger) in white

In Service and Further Development

Twelve of the initial fifteen Harts on order were delivered in April 1930 to No. 33 Squadron, commanded by Sqn Ldr J.J. Breen, at Eastchurch, previously equipped with the Hawker Horsley. Well before the squadron had completed its work-up period it placed second in the annual inter-unit bombing competition, barely three months from receiving its first Hart. One of the production development Harts was shipped to India where it was evaluated at Risalpur in an attempt to find a decent replacement to the Bristol Fighter and Siskin then in service. This aircraft was lost in an unfortunate bird-strike accident but enough testing had been carried out for the development and production of the Hart (India). Nos. 11, 39 and 60 Squadrons shared between them the 57 examples built of this type (K2083-K2132, K3921, K3922, K8627-K8631) to Specifications 9/31 and 12/33.

Further orders for Home Service squadrons had meanwhile also been placed, 82 examples being raised between 1930 and 1931. These consisted of 32 Hart I Bombers (K1416-K1447) to Contract No. 262750/30 and 50 Hart I Bombers and Hart C (communications) aircraft (K2424-K2473) under Contract No. 117876/31. Most of these went to re-equip a number of front-line bomber squadrons, including No. 12, 18 and 57.

The 1930 Air Exercises had proved the Hart to be superior not only to the RAF's contemporary bombers but also to all of its fighters, setting the phrase that 'it takes a Hart to catch a Hart'. Although the Hawker Fury single-seat fighter (SAMI Vol.3 No. 8, August 1997) was already well into its production phase, the Air Ministry issued Specification 15/30 calling for a fighter version to be powered by the Kestrel IIS. Hawker built six examples (K1950-K1955 to Contract No. 563380/30) which went to form a Flight within No. 23 Squadron based at Kenley. This version of the Hart formed the basis of the future Hawker Demon.

"...Air Exercises had proved the Hart to be superior not only to the RAF's contemporary bombers but also to all of its fighters..."

So radical was the Hart as a service machine that the need arose for a dual-control, training version. Such a modification was indeed simple, thanks to its original two-seat layout, although in actual fact the prototype (K1996) was converted from a Hawker Audax. A problem arose as the centre of gravity shifted due to the removal of the gun ring and bombing gear. As a result, sweepback on the top wing of the Hart Trainer was reduced from 5° to 2.5°. An increase in fin area was also considered but found to be unnecessary in practice. Two further 'interim'

machines were built (K3474, K2475) before the first 13 production examples were ordered through Contract No. 246227/33 (K3146-K3158).

Further production orders that were forthcoming proved to be a strain on Hawker's production facilities. Licence production was therefore arranged so that Vickers could build 65 Hart bombers to Contract No. 198868/32 (K2966-K3030), soon followed by a further 24 through Contract No. 198870/32 (K3031-K3054) awarded to Armstrong Whitworth. Further Hart Trainers built by Hawkers consisted of 21 examples (K3743-K3763), 1 Hart Trainer Special

(K4617) and 20 Series 2 (K4751-K4770) for use in Temperate climes. Vickers built 47 Hart Single-Seat Day Bombers (SEDB) under Contract No. 262680/33 (K3808-K3845) and 114 Hart Trainers Special 2A fitted with Tropical radiators (K5784-K5879). Armstrong Whitworth built 50 Hart SEDB and C most of which were completed as Audaxes, Harts Trainer (Interim) and Harts Trainer Special together with two batches of Harts Trainer Special 2A, 167 (K4886-K5052) and 136 (K6415-K6550) respectively.

Meanwhile, the Hart featured prominently in the RAF of the mid-thirties, and also went to equip Nos. 6, 12, 15, 39, 40, 60, 142 Squadrons while units of the Royal Auxiliary Air Force (RAuAF) flying the Hart included Nos. 500, 501, 503, 600, 601, 602, 603, 605, 609, 610, 611. Use of the Hart Fighter by a Flight of No. 23 has already been mentioned above.

Harts Overseas

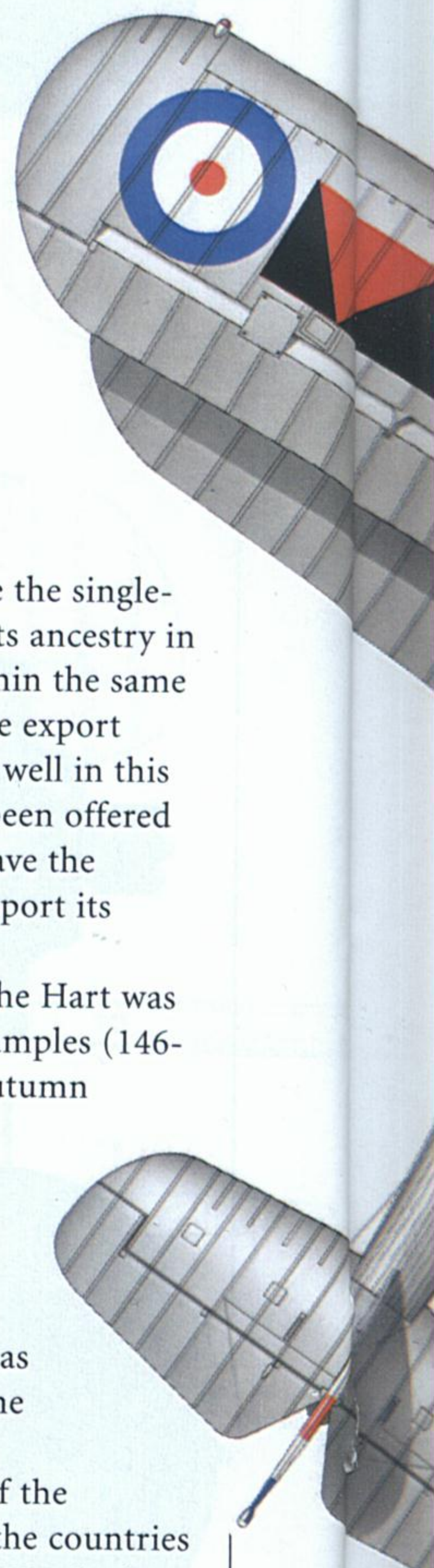
It might seem surprising that while the single-seat Fury, which clearly displayed its ancestry in the Hart, and other derivatives within the same family of aircraft found such a wide export market, the Hart itself did not fare well in this regard. One reason that has often been offered for this was that Hawker did not have the facilities or finance available to support its export sales.

The first overseas customer for the Hart was Estonia, with an order for eight examples (146-153) which were delivered in the autumn of 1932. These were equipped with interchangeable wheel and float undercarriages, the latter arrangement having been successfully tested on another Hart offspring, the naval version known as the Osprey. Little is known about the fate of these aircraft.

Far better known is the history of the Swedish Harts. Sweden was one of the countries visited between 1931 and 1932 by a Hawker's demonstration team, and following further inspections by Swedish officials at Filton and Brooklands where various Hart test-beds were undergoing trials, an order was placed for three pattern aircraft (1301-1303) for the Swedish Air Force (SAS). These were to be delivered during 1934, powered by a 580hp Bristol Pegasus IM2 radial engine. A licence was also acquired for the construction of a further 42 examples by ASJA, Götaverken and CFM in Sweden, these to be powered by a licence-built 550hp Nohab Pegasus



Front view showing engine detail of the Hart B 4 at the Swedish Air Force Museum (Lars Henriksson)





Starboard side detail of the Swedish Air Force Museum B 4 Hart, showing the fixed gun on this side and a similar Browning machine gun in the rear air-gunner's cockpit (Lars Henriksson)



IU2 engine. Swedish Harts were identified by the designation B 4 for the former and B 4A for the latter, while two examples fitted with a Bristol Perseus XI engine of 755hp were designated B 4B.

Serials in SAS ran from 701 to 745 and were built as follows: Hawker – 701 to 703, CFM – 704 to 712, 728 to 739; ASJA – 713 to 724, 740 to 745; Götaaverken – 725 to 727. They were operated between 1936 and 1947 by F1 at Västerås, F4 at Frösön, F6 at Karlsborg, F7 at Sätenäs, F8 at Barkarby, F9 at Säve, F10 at Ängelholm, F11 at Nyköping, F12 at Kalmar, F17 at Ronneby and F21 at Luleå. It must be stressed, however, that only the first four units (and particularly the first three) were ever equipped with the Hart in great numbers, the other units fielding between one and three examples in combination with

other types.

The Swedish Hart differed from the original not only in its power plant but also in various other details. Foremost among these was its armament, consisting of a Browning 8mm M/22 gun fixed on the starboard side (instead of port) and a similar hand-operated gun in the rear cockpit. An external recognition feature was its larger area fin and rudder.

When Russia attacked Finland in November 1939, F19 was set up on 19 December 1939 by Swedish volunteer pilots under the command of Major Hugo Beckhammar equipped with aircraft purchased with

money collected among the Swedish public.

Four Hart B 4 bombers (a fifth being added later) formed part of the unit which was also equipped with Gloster

Gladiators (see SAMI Vol.7/1, January 2001). The

Harts had their baptism of fire on 12 January 1940 when they flew a reconnaissance and ground-attack mission against troops and the airbase at Märkäjärvi, Salmijärvi, Salla.

During this attack the Gladiators shot down one I-15 and destroyed a second on the ground, while two further I-15s were credited to Harts flown by Överstelöjtnant Per E. Sterner and Löjtnant Nils Åke Mörne, also destroyed on the ground. Three of the Harts, however, were lost during that attack, two of them in an air-to-air collision. Sterner became a Soviet prisoner of war, while his observer Löjtnant Anders Zachau, was killed. Fänrik Arne Jung also became a Soviet POW but his observer Furir Matti Sundsten managed to ski back to the Finnish

lines. The third, flown by Fänrik Gunnar Färnström, was attacked by three I-15s and suffered enough damage to force the pilot to make an emergency landing. Another attack was mounted on the night of 18-19 February with another I-15 credited as destroyed on the ground awarded to Löjtnant Nils Åke Mörne.

A final sortie by Mörne and Färnström took place on 12 March when the two Harts attacked road traffic. The following day the Winter War ended and on 29 March one of the bombers flew back to Sweden, followed by the second survivor the day after. The five Harts operated with Finnish markings, and carried the codes R, Z, Y, X and M on their rudders.

Four ex-RAF Harts are reportedly to have been loaned to the Yugoslav Air Force in 1931 while a number of other ex-RAF machines were supplied to South Africa and Rhodesia just prior to the Second World War.

Epilogue

The RAF Museum's Hart has possibly survived through its long association with Hawker. The parent company and Rolls-Royce decided to buy back ex-RAF aircraft for engine test flying. The first was G-ABMR, which flew with every version of Kestrel engine ever produced between 1930 and 1939. During the war it was assigned a number of photographic sorties and was also used as transport for ferry pilots. During the post-war period it flew in a magnificent all-blue finish and was later painted in No. 57 Squadron colours carrying the serial J9941.

Richard J. Carnana

Acknowledgements

My sincere thanks to Mikael Östberg for the material and advice he has provided on the Swedish Harts and Lars Henriksson for his photographs of the Swedish Air Force Museum example.

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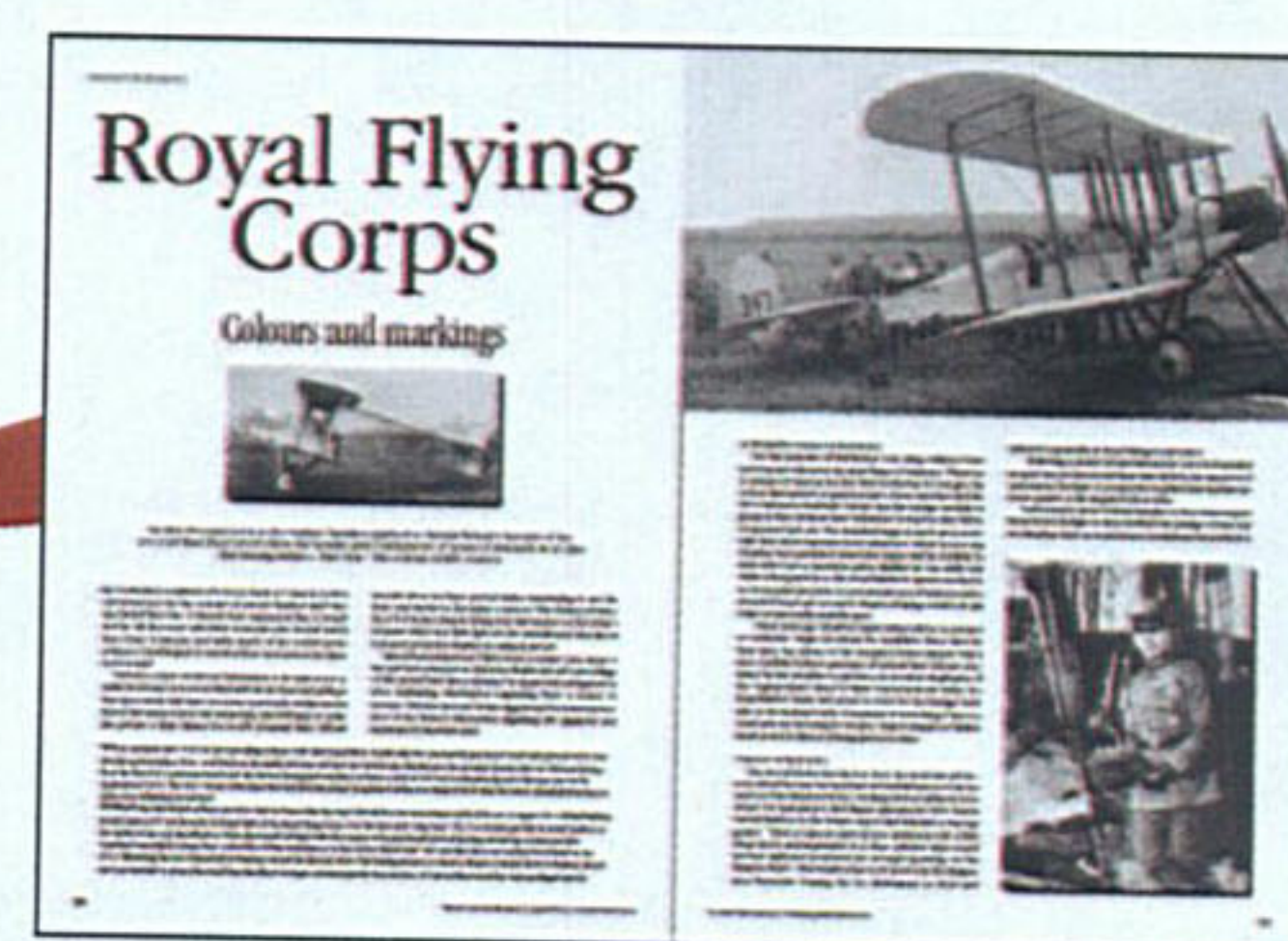
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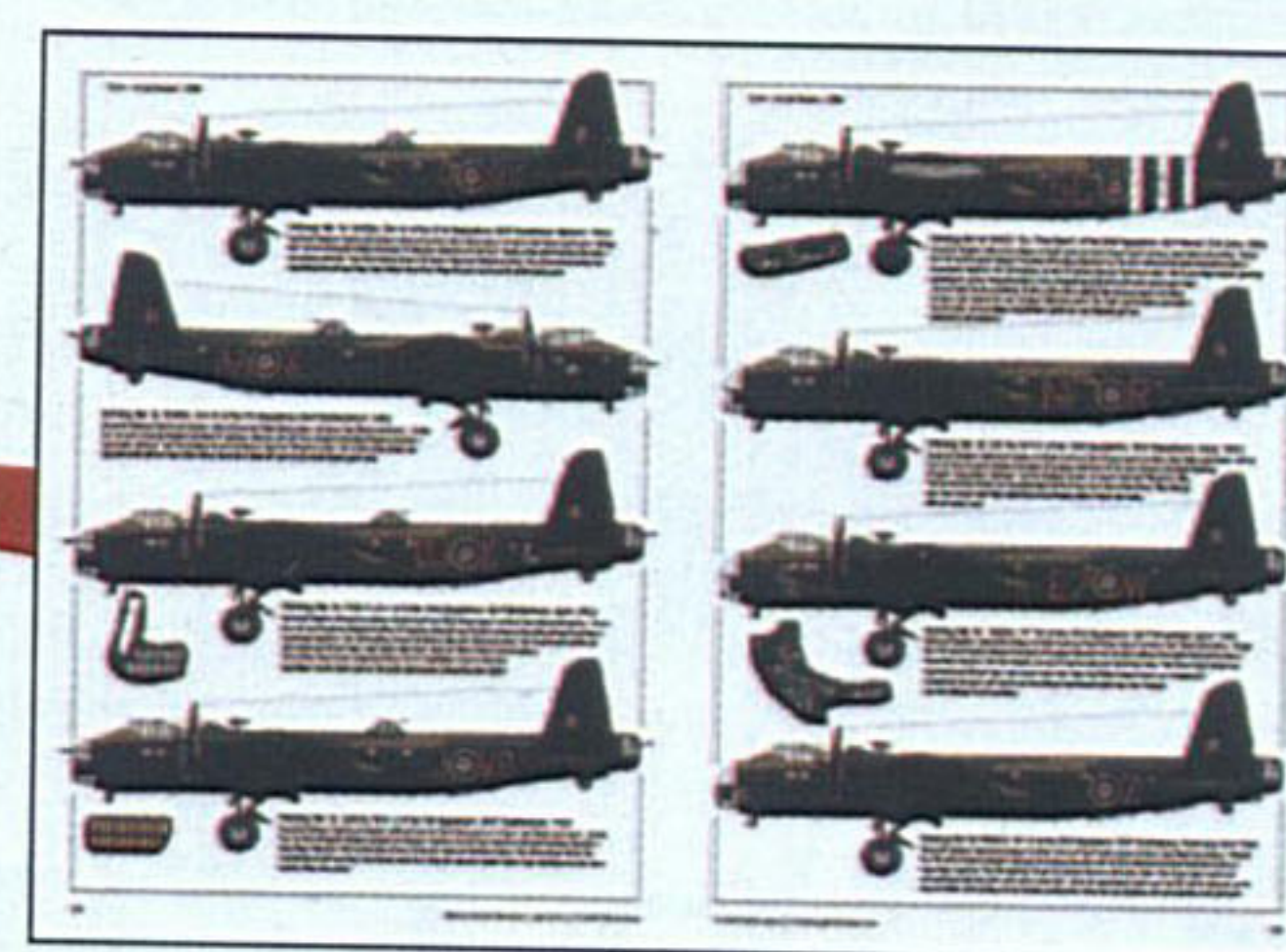
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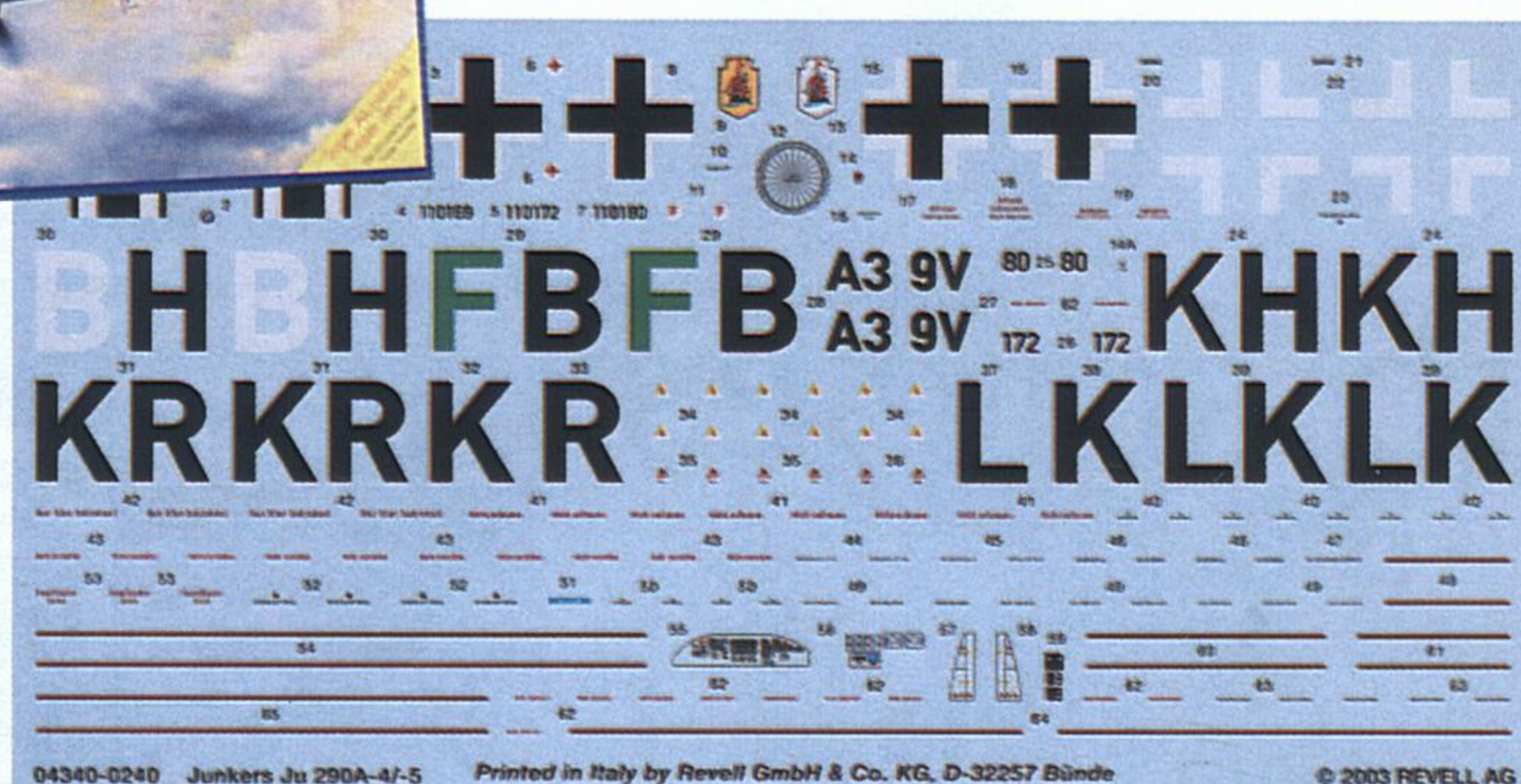


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Sea Eagle

Building Revell's 1/72nd scale
Junkers Ju 290A-5

by Richard A. Franks



Junkers Ju 290A-5 'Seeadler'

Scale: 1/72nd
Kit No: 04340
Price: £19.99
Panel Lines: Recessed ✓
Status: New Tooling ✓
Type: Injection Moulded Plastic
Decal Options: 4
Manufacturer: Revell AG

The basic design that led to the Junkers Ju 290 started life as a pre-war airliner in the form of the Junkers Ju 90. The Ju 90 was in turn a development of the aborted Ju 89 'Urals Bomber' project, which was terminated on the 29th April 1937. Sixteen Ju 90s were built and although some of these saw service with Lufthansa in the pre-war period, most were later impressed into Luftwaffe service. Design studies to improve the capabilities

of the Ju 90 were undertaken from 1937 by Dipl. Ing. Kraft under what was termed as the Ju 90S ('Schwer' - Heavy). By 1939 this project transferred to the Letov plant in occupied Czechoslovakia and all Lufthansa-operated Ju 90s were transferred back to Junkers at Dessau for use in Ju 90S

development trials. By this time the Ju 90S programme had been redesignated the Ju 290 by the RLM. The first true Ju 290 was actually the Ju 90 V11, as it featured the extended 137ft 9 1/2in span and

rectangular fuselage windows seen on all production Ju 290s. The first production Ju 290 series was the A-0, which started to come off the Dessau production line in October 1942. This was followed by the A-1, A-2, A-3 and A-4 versions and by November 1943 the A-5 variant started to be produced. This dedicated maritime reconnaissance aircraft featured





1/72nd Scale

Manufactured by

Revell

increased protection for the crew and fuel tanks, as well as a fuel jettison system. Just eleven Ju 290A-5s were built and from the last (W/Nr. 180) the mid-fuselage mounted MG 131 machine guns were replaced with MG 151/20 cannon. The A-6, A-7, A-8 and A-9 versions were all produced in limited numbers up to the end of WWII and probably one of the last Ju 290s left flying in the world was an A-6 operated by the Advanced Flight School at Salamanca-Matacan in Spain, which remained in service well into the 1950s.

The Kit

Many I am sure scratched their head when this one was announced and though "the Ju... what?" I have to admit that my initial thoughts were along these lines, but Revell AG have been doing a new Luftwaffe 'heavy' for the past three years now, starting with the He 177 in 2001, the Bv 222 in 2002 and the Ju 290 for 2003.

Strangely, to date, no announcement of another new 'heavy' has been made by Revell, but we can all hope for an all-new Fw 200!

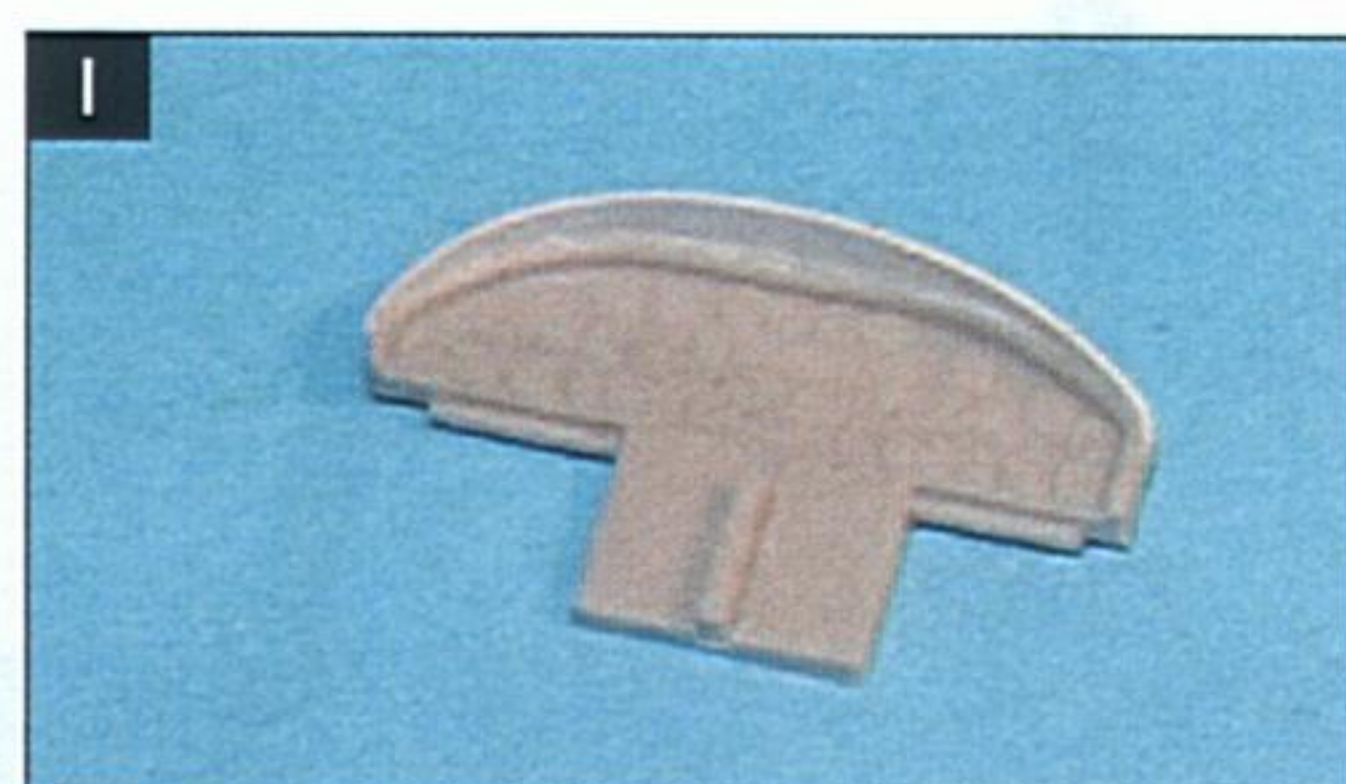
The kit itself is typical of the new generation tooling being produced by Revell AG of late. I would suspect that this one originates in the Far East, either Korea or China, although its actual production is all done in Germany. The first thing that will strike you is the unusual breakdown of parts. The fuselage is a good example of this, with the upper decking as a separate insert and the lower fuselage/wing section as one piece. Both cause fit problems, as neither have substantial locating lugs, but more on this later. The wings have the already mentioned inner/fuselage section and then separate outer upper and lower sections. The engines are multi-part and allow the modeller to pose the cowlings open (like their Bv 222), but all is not well here, so more on that in the

construction stage. The loading ramp is separate, but considering the huge gaping hole this produces coupled with the side loading doors which can also be posed open, the fuselage interior lacks any real detail and fuselage ribs etc are restricted to areas opposite the rear doors. The interior does have a full length floor, gun positions (two styles) and a full cockpit interior, but there is still room for improvement.

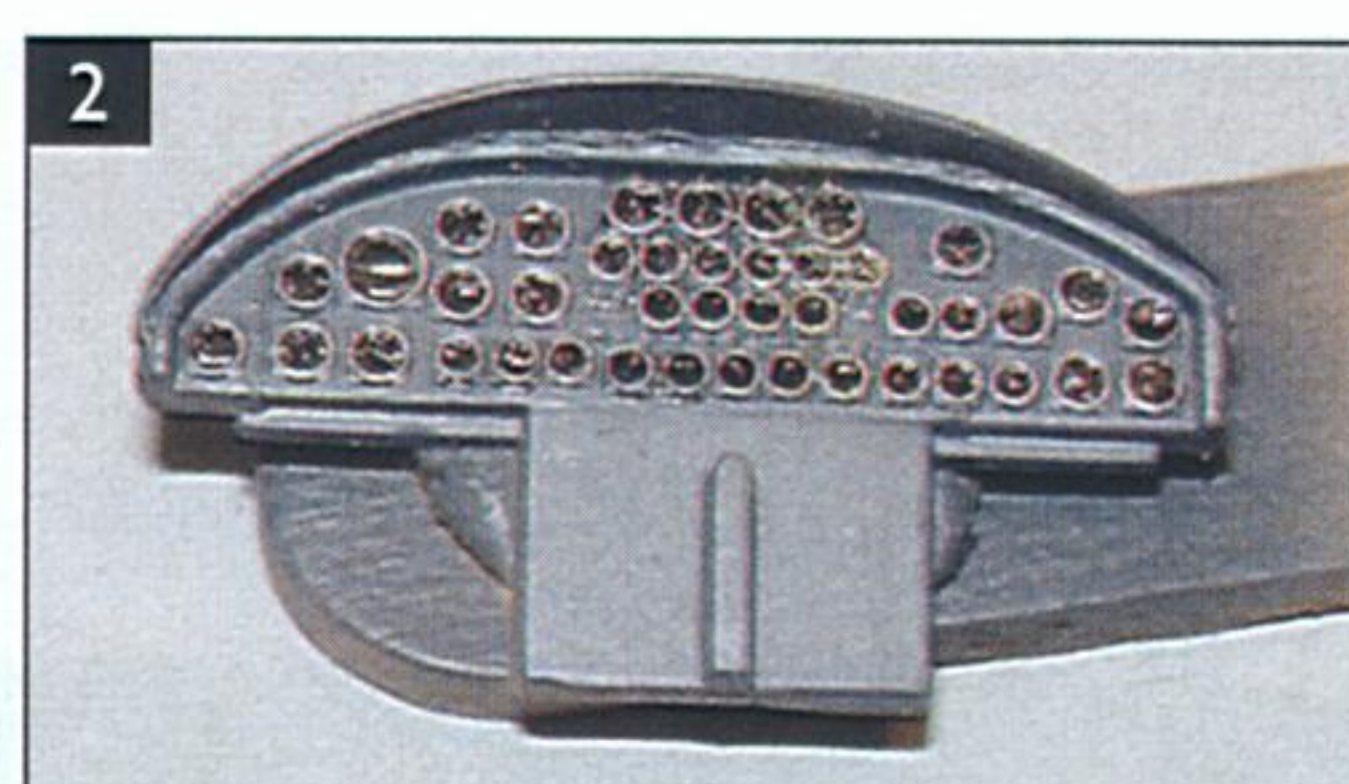
Construction

The first task is to deal with the cockpit and interior floor. These are covered in stages 1 through to 12. First to receive attention was in the instrument panel (Part #5). This is pretty well detailed from the box so needed nothing more than careful painting. However, the prominent anti-glare shield around the panel in the real thing is not well defined on the kit part so I added this with a suitably shaped piece of plasticard (See Photo 1). The whole thing was

then sprayed with the interior colour then the instrument dials were picked out in black before being 'glazed' with Johnsons Klear (See Photo 2). The flight deck is well detailed and needed little more than some etched seat belts from a pre-painted Eduard set and careful assembly and painting, I did add a few details though, which included details to the seat backs and floor (See Photo 3) and replacement of the inaccurate control yoke shape with new ones made from wire (See Photo 4). The radio area is well detailed but once again I added a few extra details. The seat supports on both bulkheads (Part Nos 12 & 16) leave a lot to be desired, so these were rebuilt from plastic rod (See Photo 5). The radio equipment itself had brass wiring added (See Photo 6) and the lamp over the table was added from plastic scraps and wire (See Photo 7). The set of three seats in the aft compartment are OK as supplied but their style of



1 The prominent anti-glare shield around the instrument panel made from plasticard



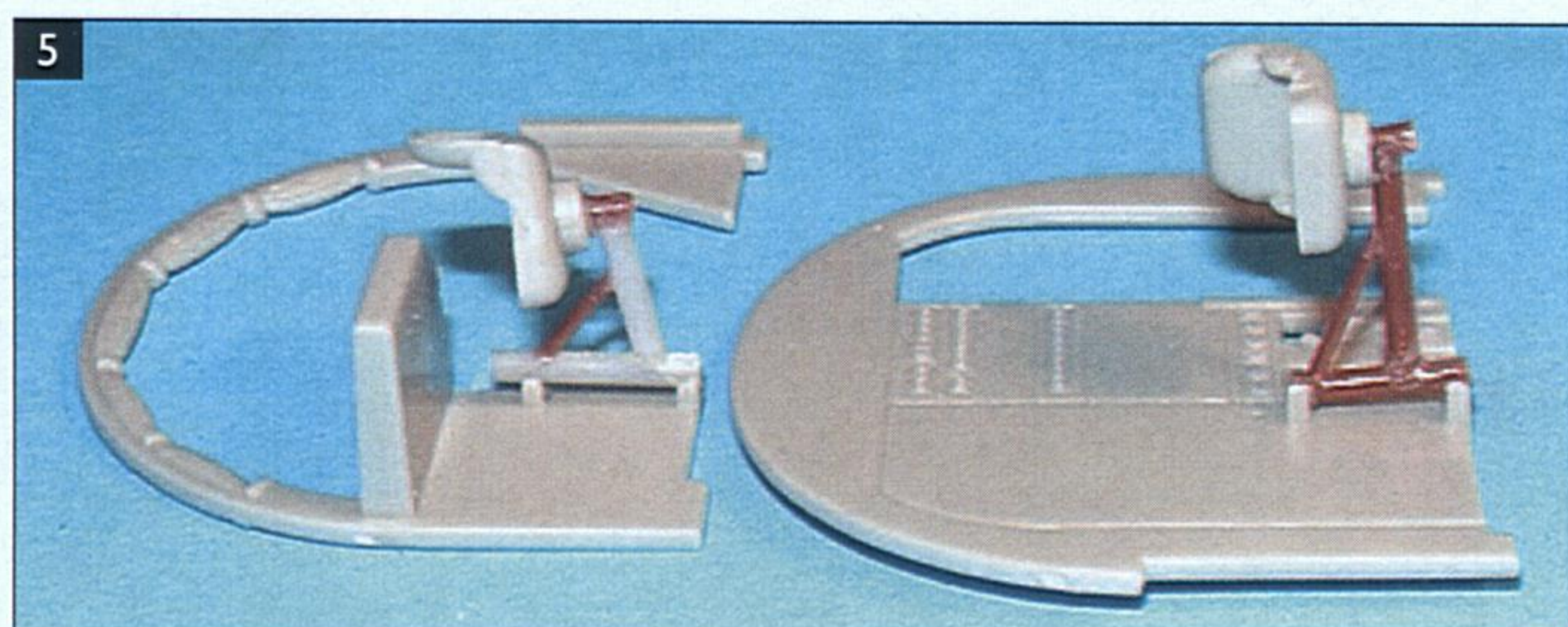
2 The panel sprayed with the interior colour and all the dials picked out in black before being 'glazed' with Johnsons Klear



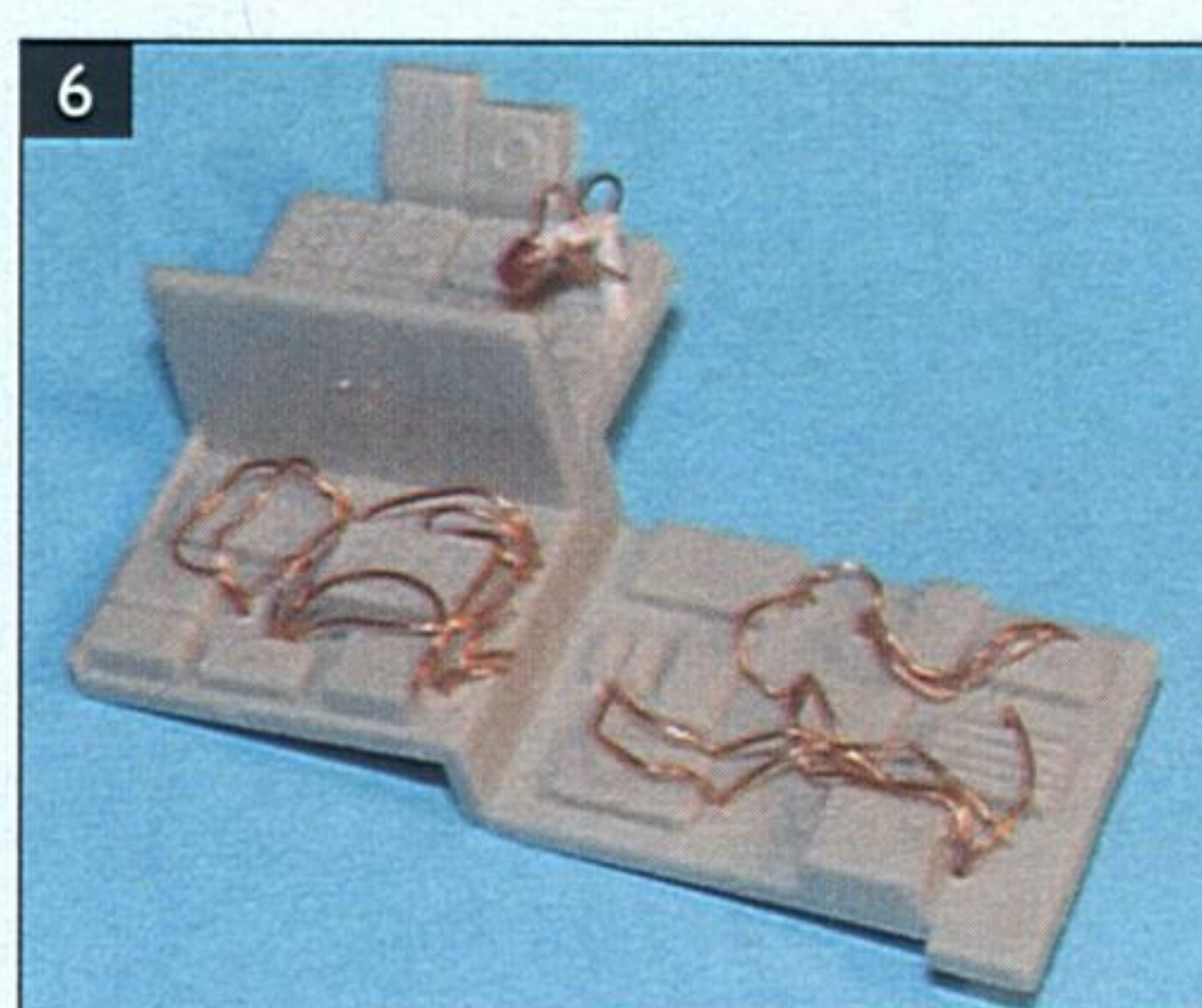
3 Details added to the cockpit area, including those to the seat backs and floor



4 Replacement of the inaccurate control yoke shape with new ones made from wire



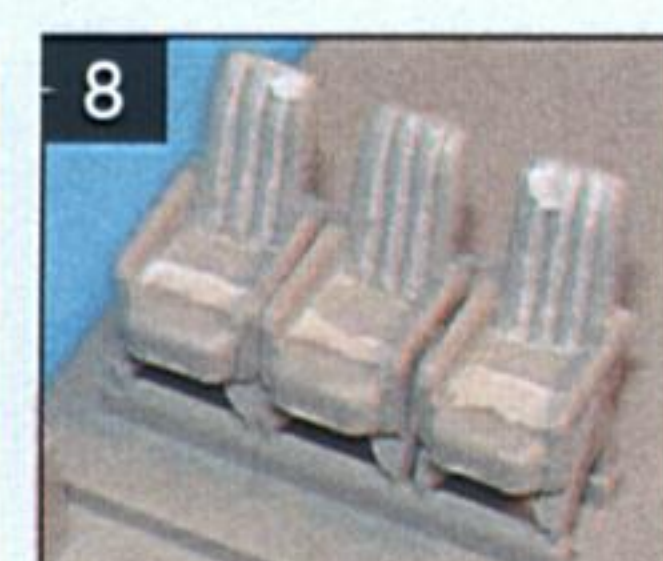
5 The rebuilt seat supports on both bulkheads (Part Nos 12 & 16)



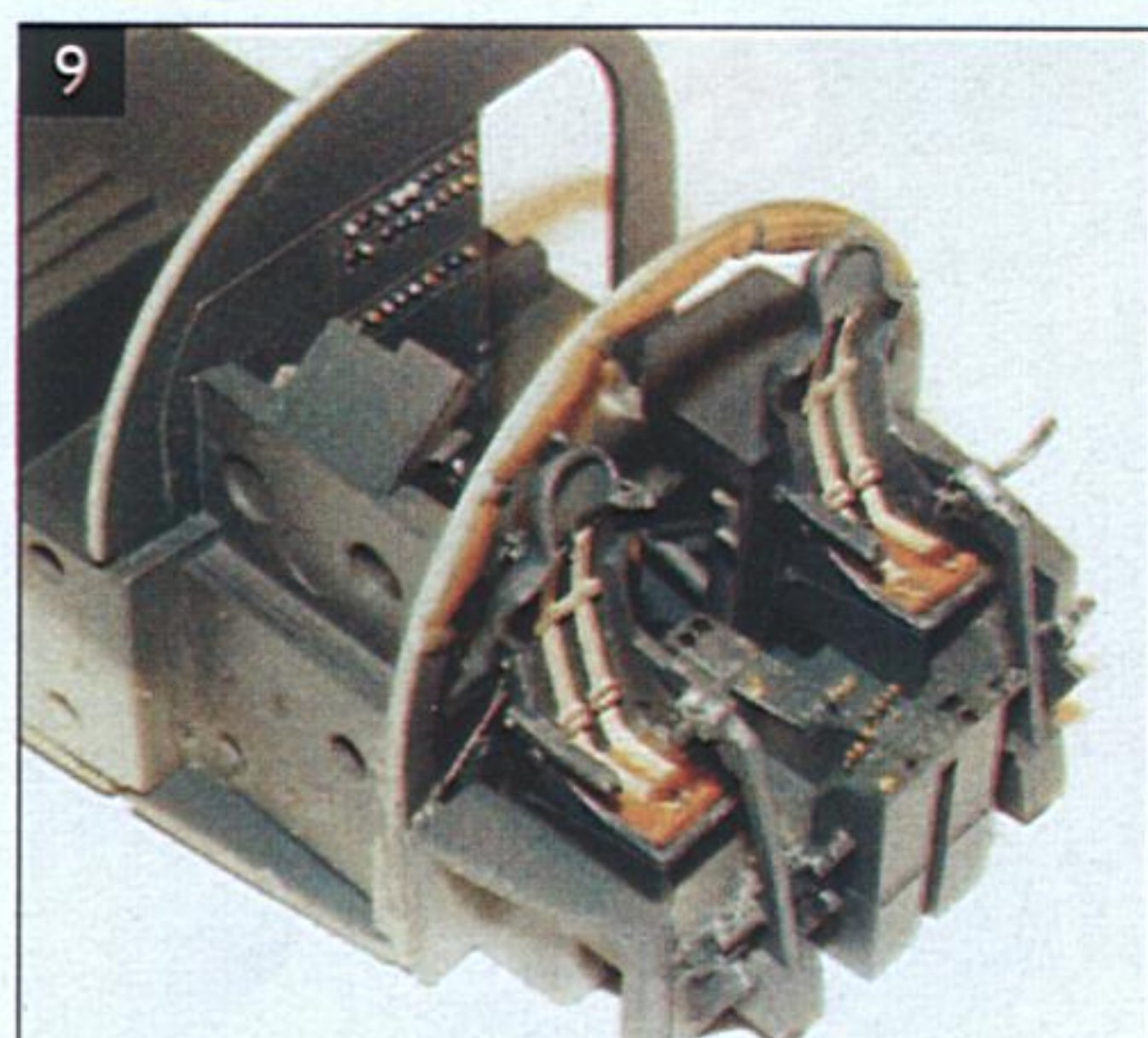
6 Brass wiring added to the radio equipment



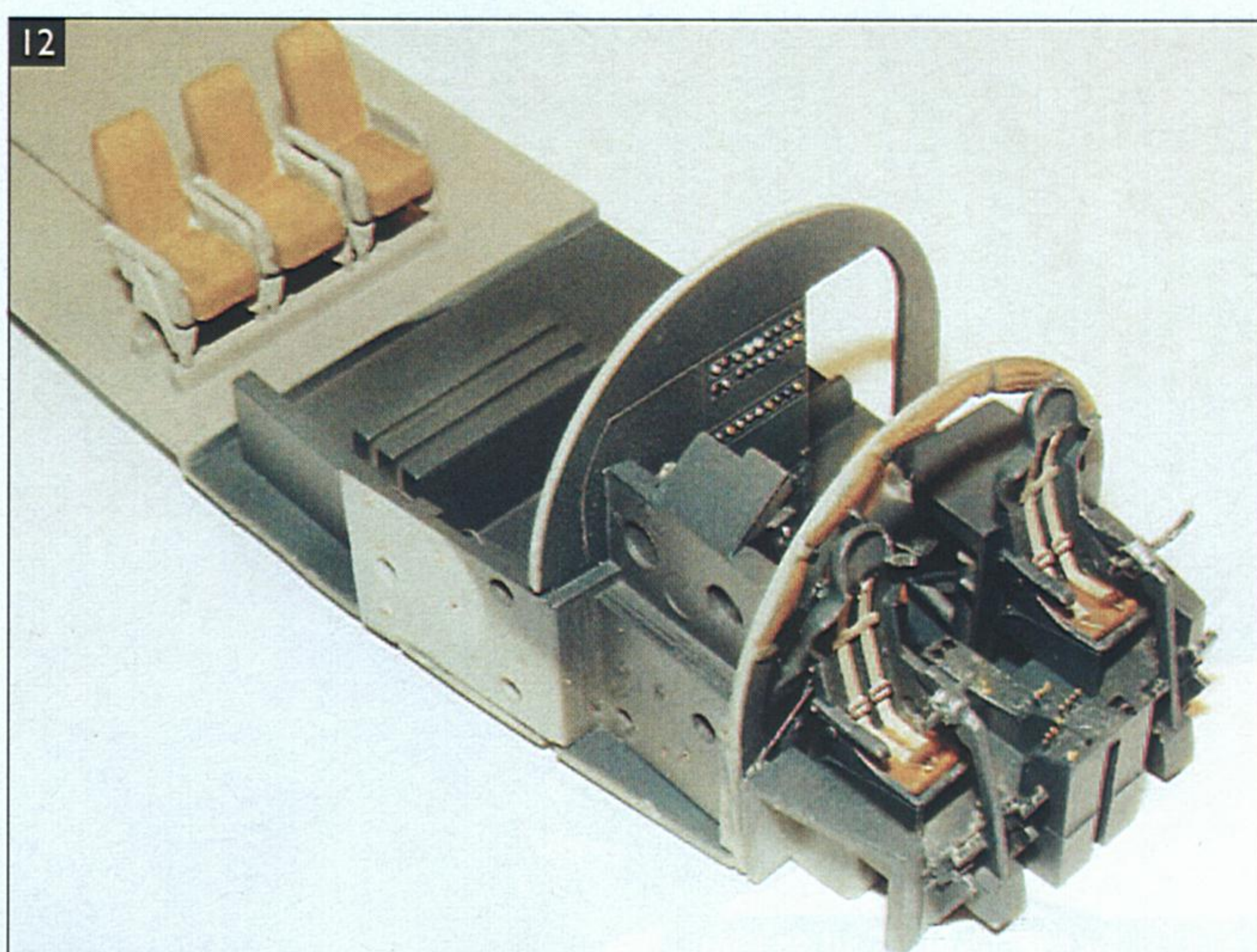
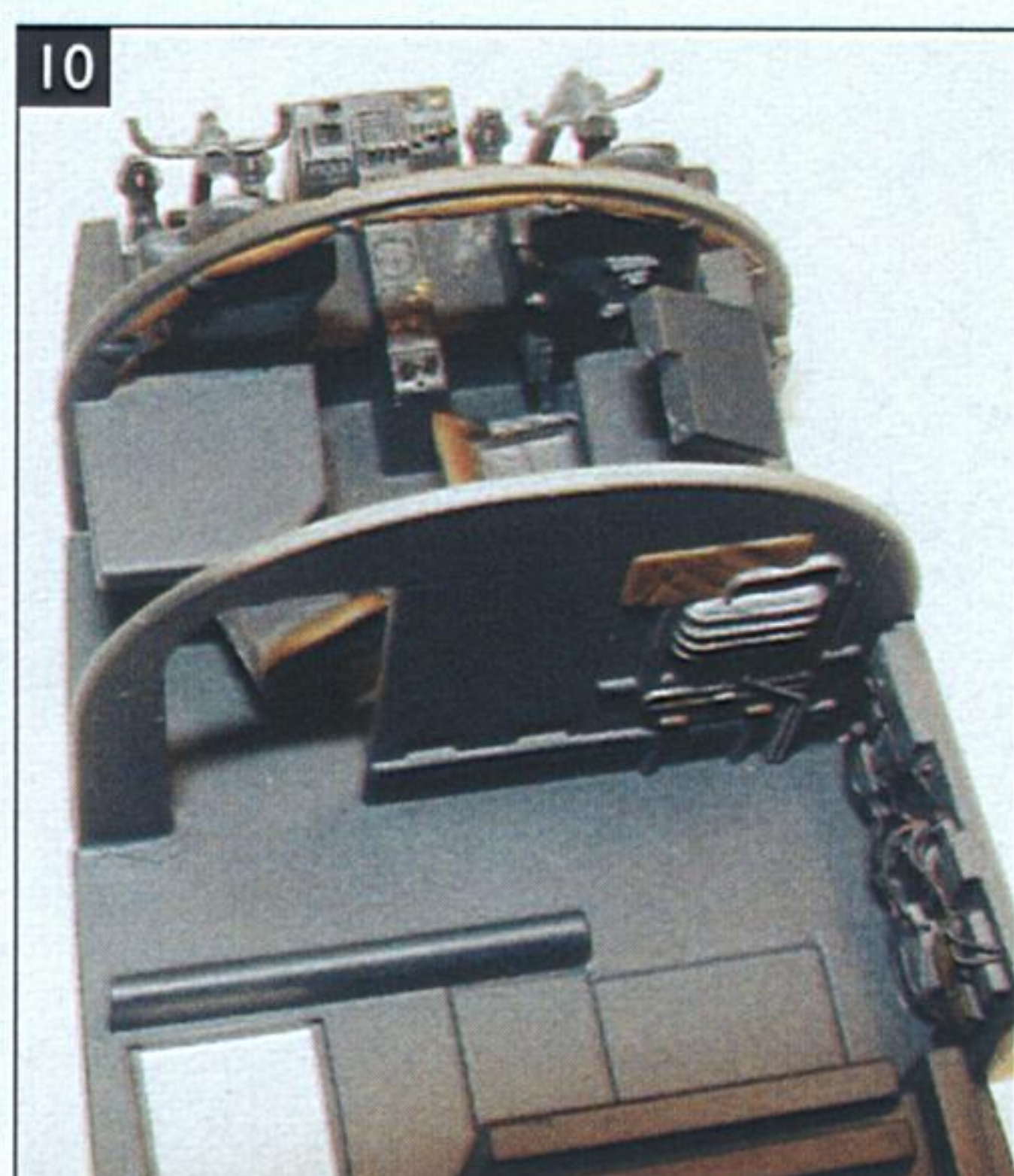
7 left: The lamp over the table was made from plastic scraps and wire



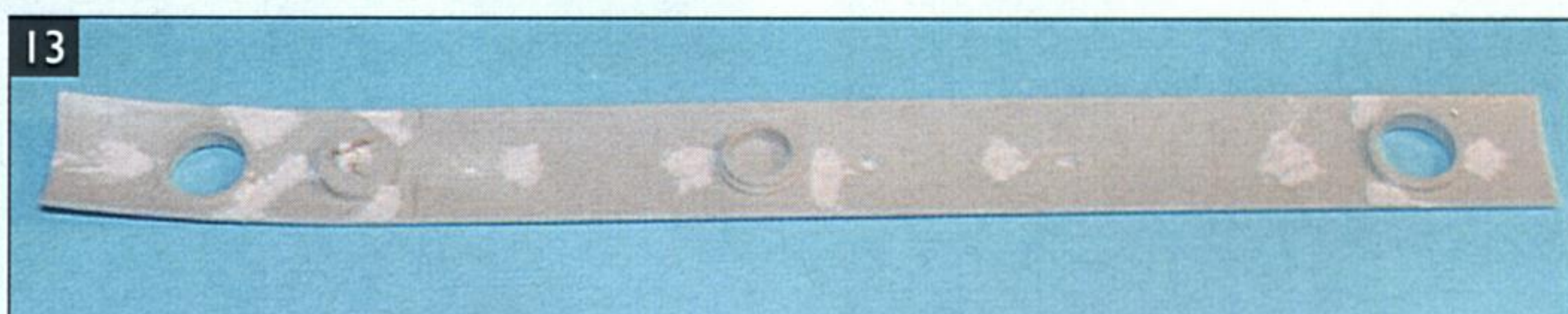
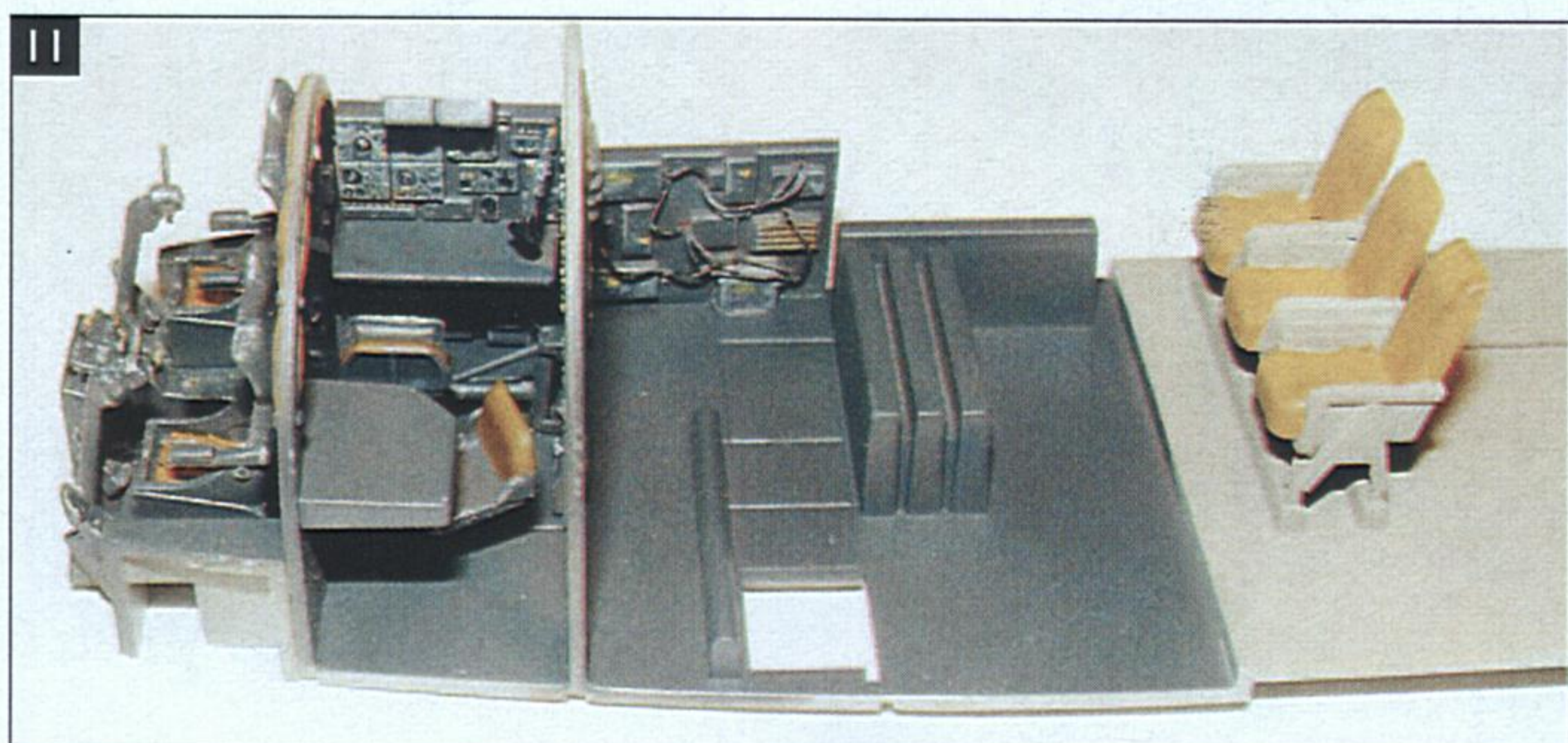
8 right: As the style of cushion on the seats in the rear compartment did not match photos I had I opted to fill the creases in



9 The interior was sprayed with RLM 66, detail colours were added in the cockpit and all the seat cushions were painted a suitable shade of Leather Brown



12 The section of floor aft of the step in it was sprayed RLM 02 Grau



13 The dorsal spine is peppered with ejector pin marks which all have to be filled

cushion did not match photos I had and so I opted to fill the creases in them and have them as more plain units (See Photo 8). Now it was time to spray the interior with RLM 66, add detail colours in the cockpit and paint all the seat cushions with a suitable Leather Brown and the end result was quite impressive (See Photos 9 & 10). The section of floor aft of the step in it, which includes those previously mentioned seats, should be RLM 02 Grau, as is all of the cargo bay area (See Photos 11 & 12).

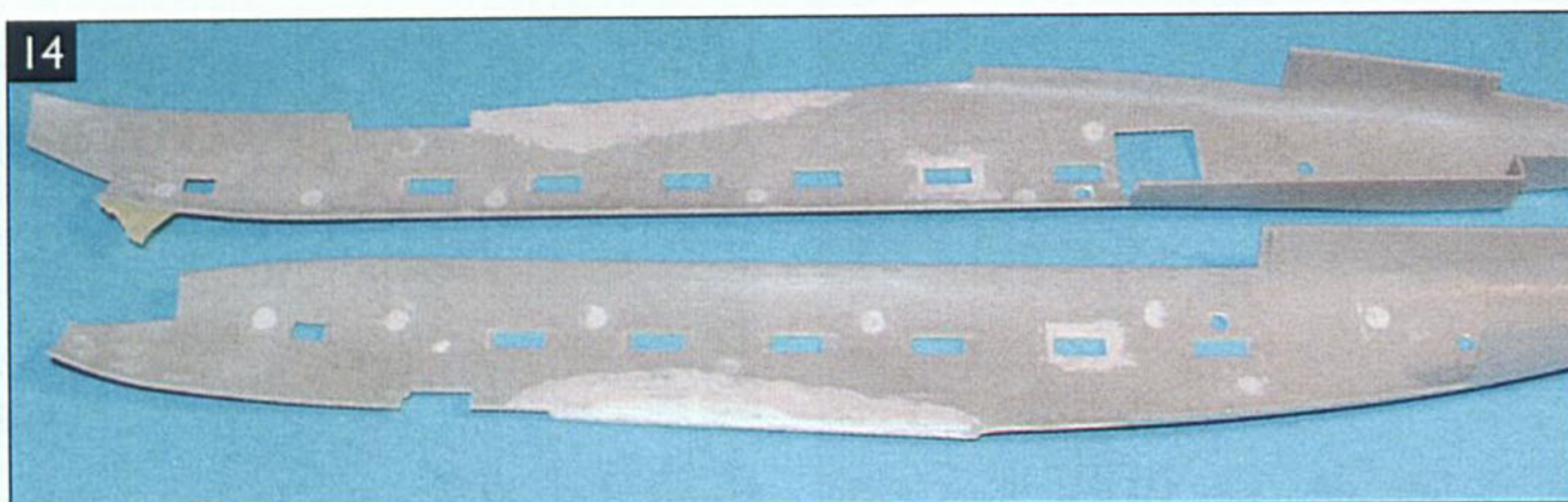
Now my attention turned to the main fuselage and here I feel that Revell have made a bit of a mistake in how they have tooled this kit. The upper dorsal spine is a separate piece. This all seems fine but when you also consider that the lower section of most of the fuselage is also not there (being built into a section of the lower wing) it all makes for a very flimsy assembly. The dorsal spine is also peppered in

ejector pin marks which all have to be filled (See Photo 13). The fuselage halves themselves do not fare much better, as they have loads of ejector pin marks as well. The cut-out for the wing root is also prominent and really needs to be filled. I also found that because of the option I was building I did not have to cut out the recessed window for the bigger machine-gun. This resulted in there being a deep recess all around where the glazed panels would go, and I was not keen on that. The upshot of all this was that I used a lot of plasticard packing and filler to fill all of these areas in (See Photo 14). Those areas around the window port were quite complex to achieve but with care it can be done (See Photo 15). I opted (fool that I am) to add the ribs inside the entire fuselage and so proceeded to do this with the finest plastic strips I had (See Photos 16 & 17). With hindsight stretched sprue may have been

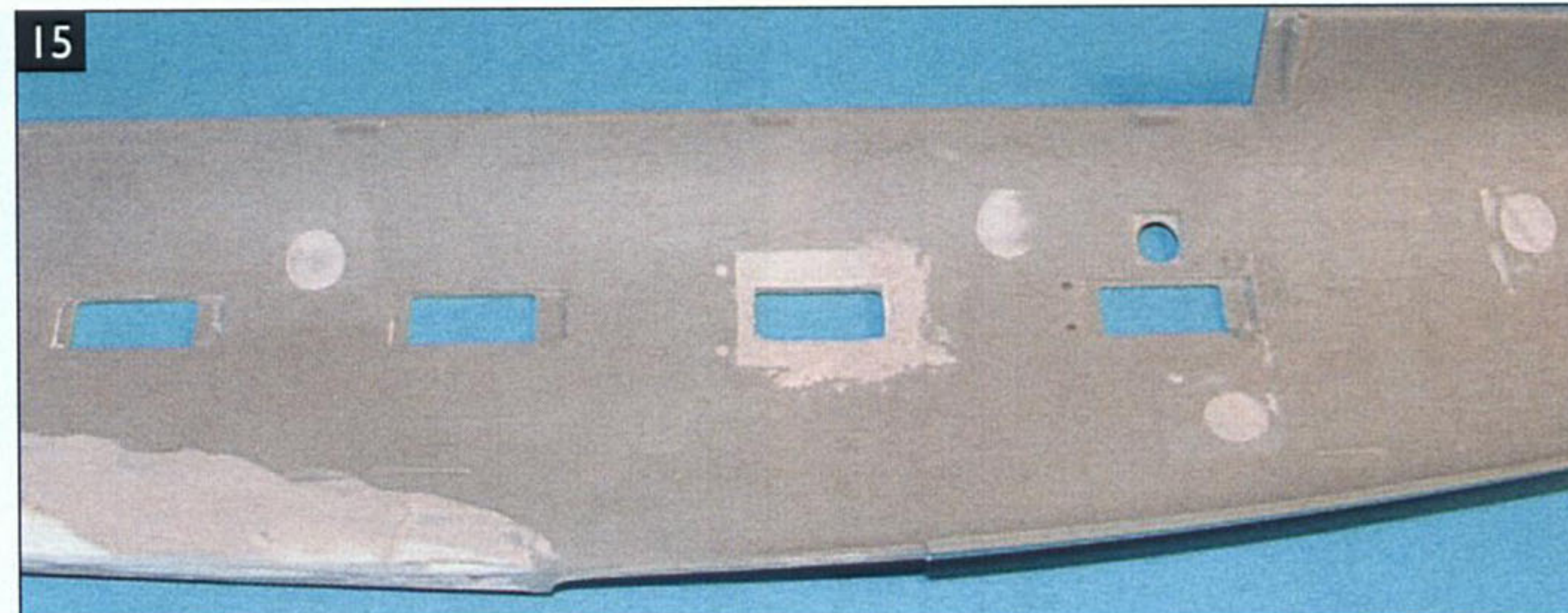
better as even 10thou plastic strips were a bit on the bulky looking side in this scale. The whole area (less the cockpit area, which is painted RLM 66) was sprayed RLM 02 and cabin lights were added in the roof from sections of a suitable diameter hollow rod with the glazed sections made from Krystal Klear and the wiring made from brass wire (See Photo 18). I had also added a bit of detail below the recess for the DF loop in the dorsal spine (See Photo 19) although this may not be truly necessary. I also found what seems to be an inaccuracy with regard to the vents in the dorsal spine. Those in the kit are shown as being oblongs, while images I had seemed to suggest they were in fact circular in cross-section with a domed end. I opted to change the kit, although I have no proof to say I am right in my assumption. I cut off the moulded intakes and used plastic rod of a suitable diameter cut lengthwise to make up the intake,

then capped one end with filler that was later sanded to profile (See Photo 20). Fitting the dorsal spine will soon prove that the fit, although along panel lines, is not that good (See Photo 21). Filling and sanding this area seemed a shame, so I opted to just apply a thick coat of enamel paint then sand this back carefully later (See Photo 22). My final task with the fuselage was to add some detail to the rear side-loading doors (See Photo 23) and to the loading ramp (See Photo 24). I also wanted to add the ammunition boxes and walkway in the rear turret, so did this with suitable bits of plasticard (See Photo 25).

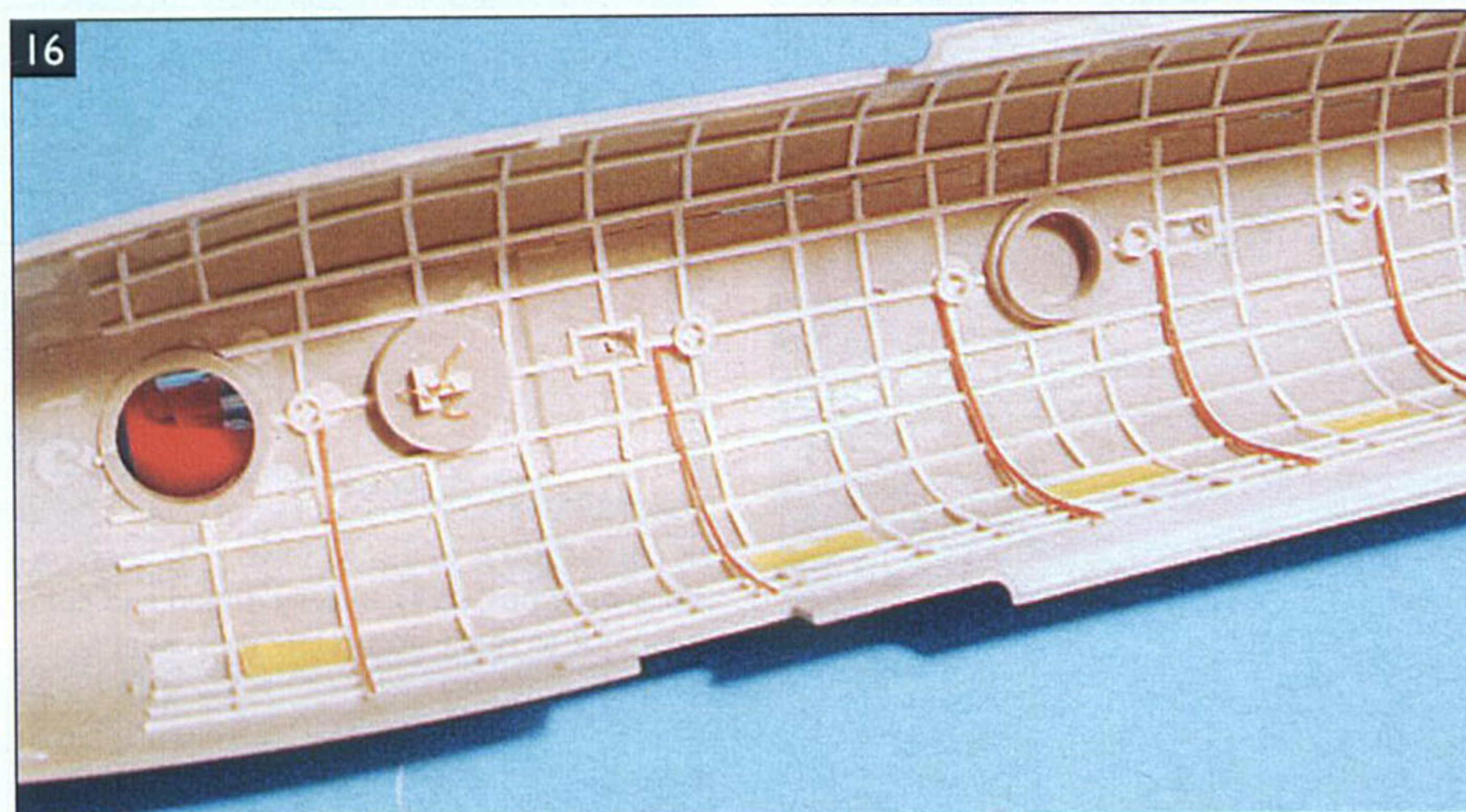
My attention now turned to the wings. The undercarriage bays are pretty bare as supplied (See Photo 26), so I added ribs and other details from scraps of plastic and plastic strips (See Photos 27 & 28). The upper roof of each bay will be the underside of the upper



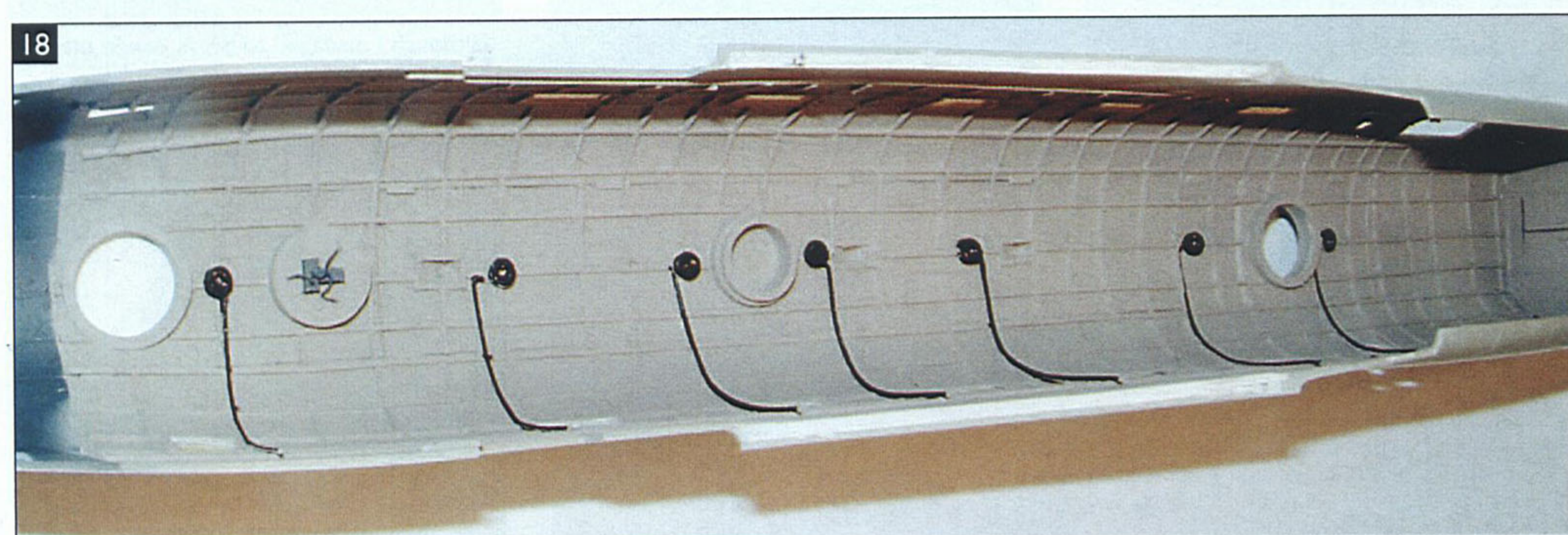
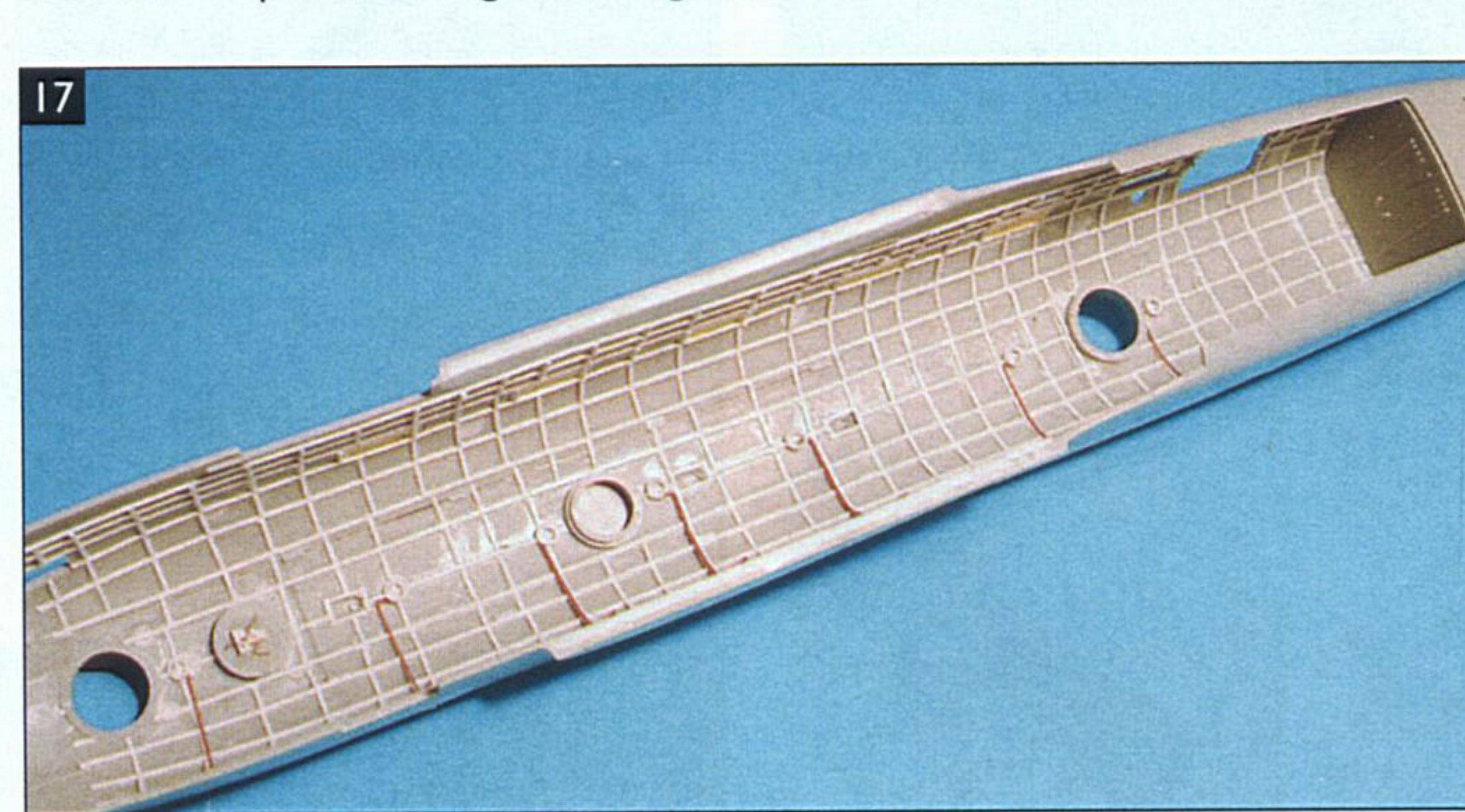
The ejector pin marks in the fuselage halves and the wing root cut-out were all filled with either filler or a combination of plasticard and fille



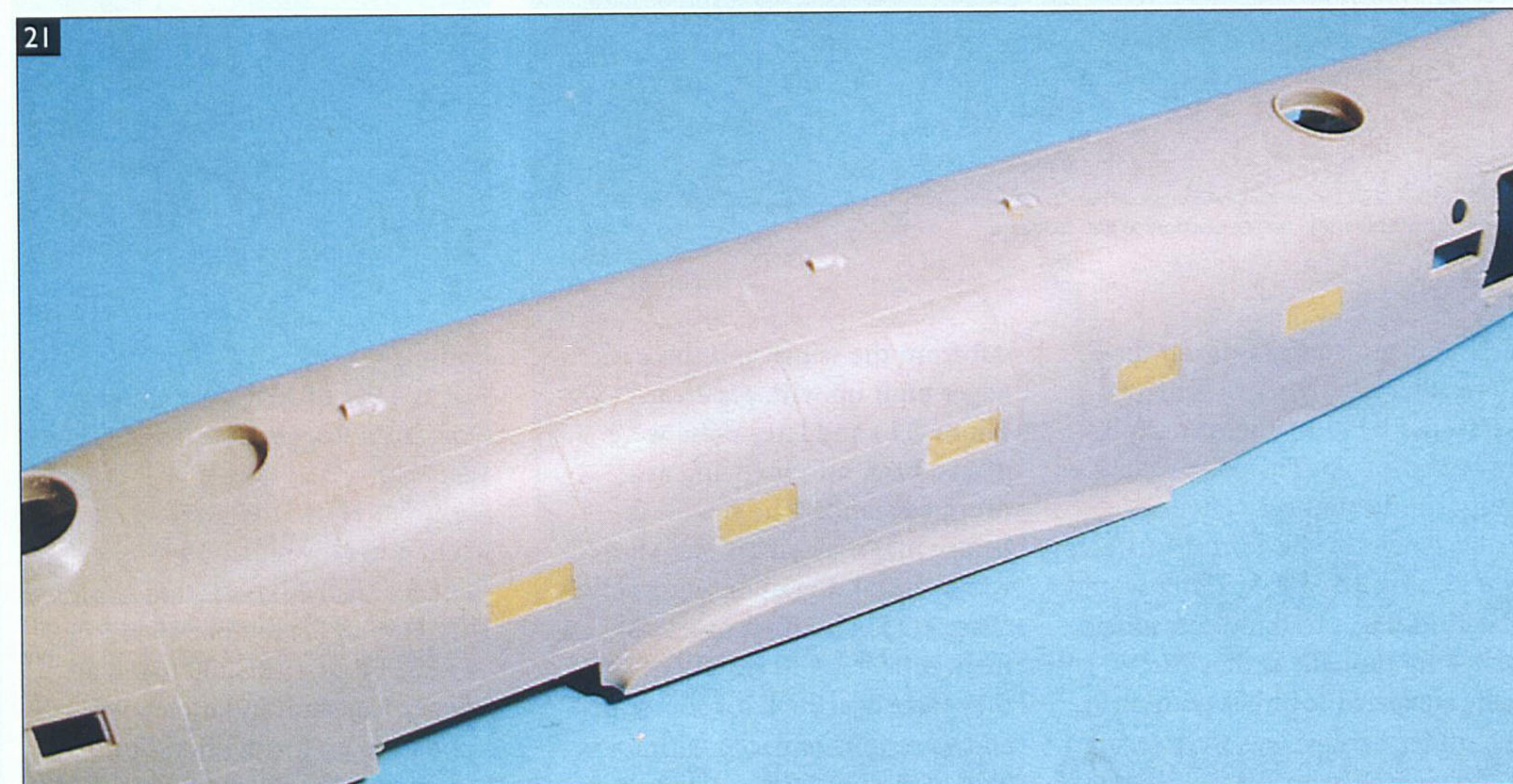
The rather complex bit of filling and sanding need around the interior of one of the aft windows



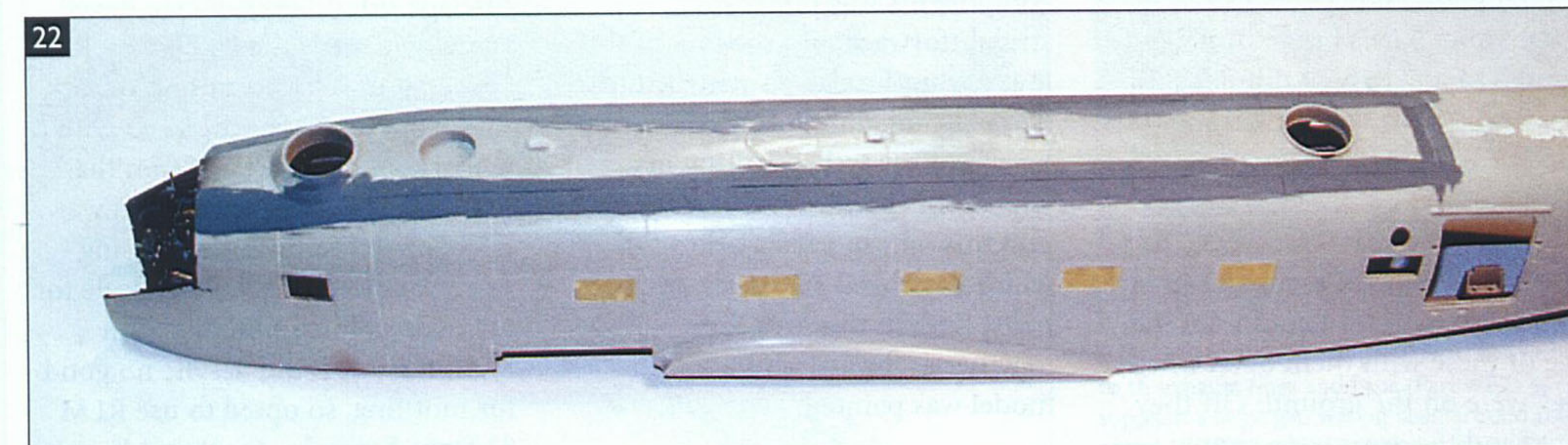
I opted (fool that I am) to add the ribs inside the entire fuselage and so proceeded to do this with the finest plastic strips I had



Cabin lights were added in the roof from sections of a suitable diameter hollow rod with the glazed sections made from Krystal Klear and the wiring made from brass wire



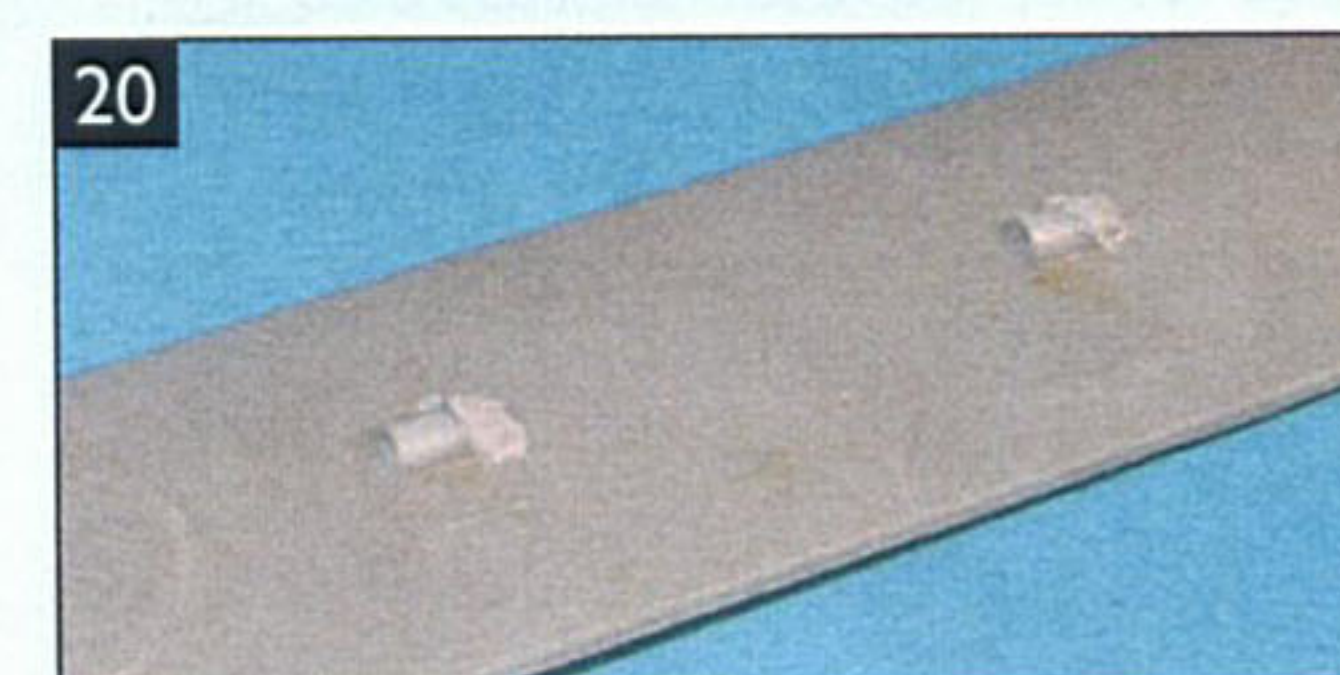
Fitting the dorsal spine will prove difficult



Filling and sanding the dorsal spine join is best done with a thick coat of enamel paint so as not to destroy too much of the lovely recessed detail with the ensuing sanding

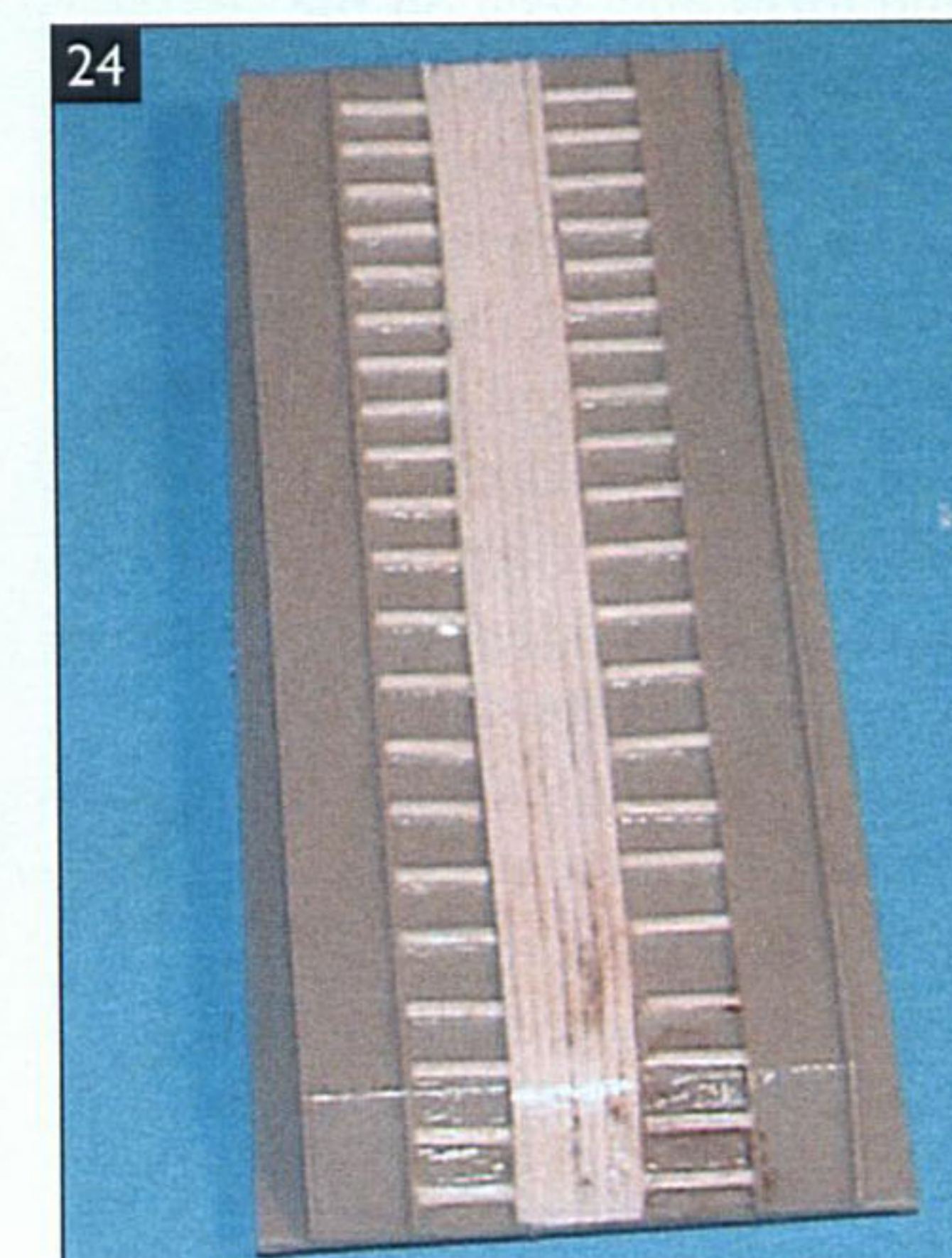


I also added a bit of detail below the recess for the DF loop in the dorsal spine

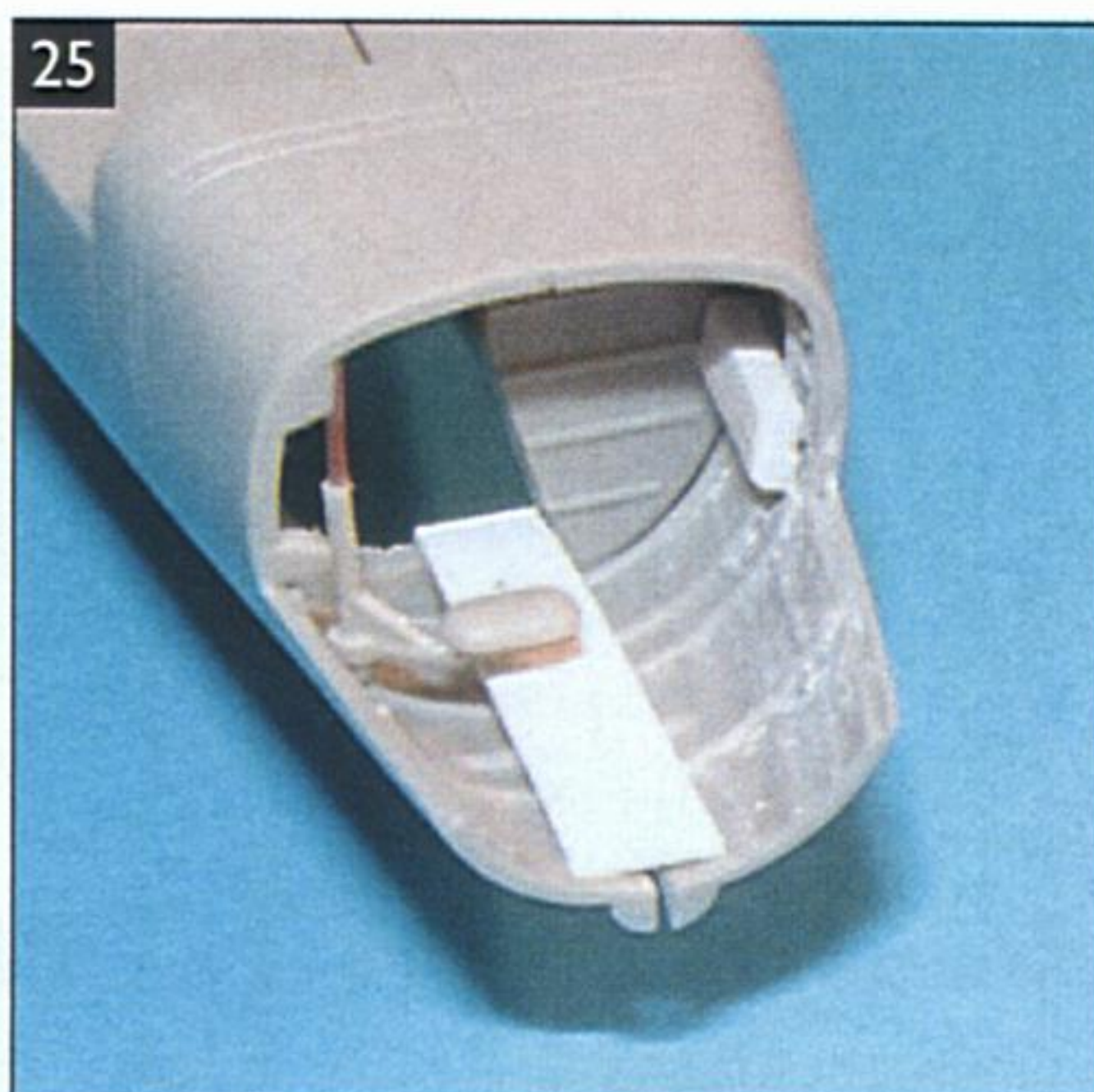


The dorsal intakes did not match photos I had of some Ju 290s so I opted to replace them. Here you can see the new intakes made from plastic rod of a suitable diameter cut lengthwise to make up the intake, then capped one end with filler that was later sanded to profile

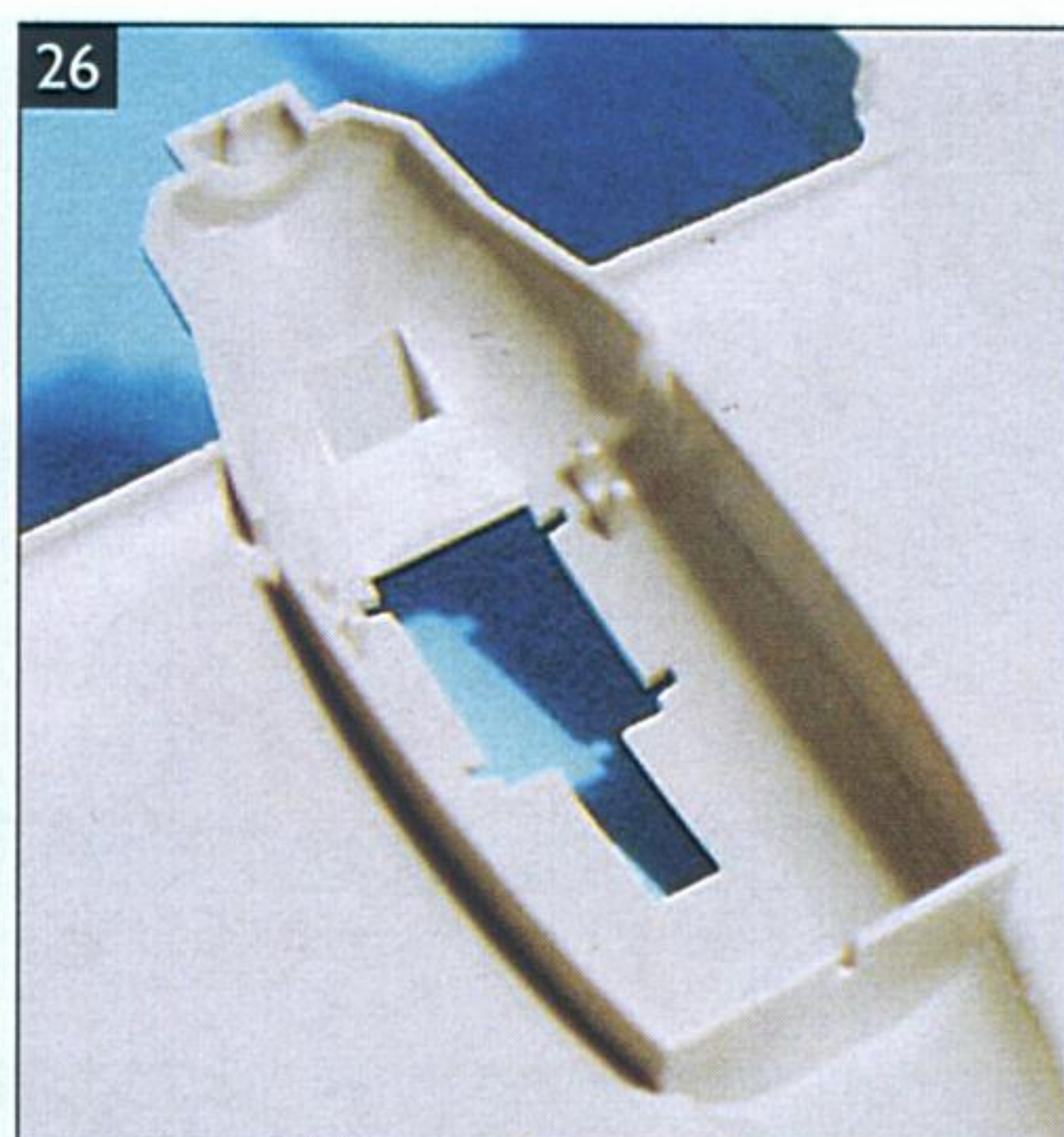
My final task with the fuselage was to add some detail to the rear side-loading doors...



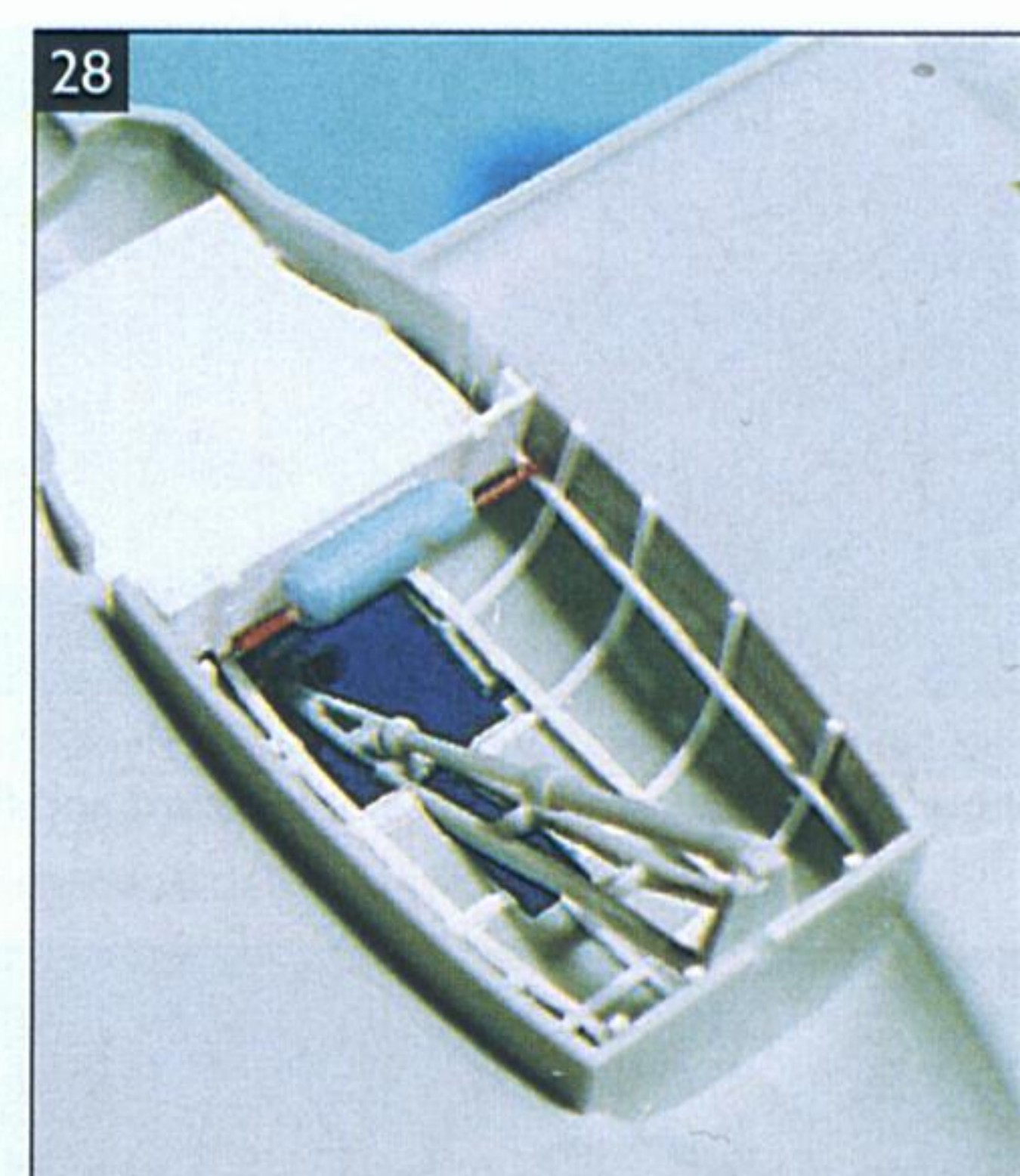
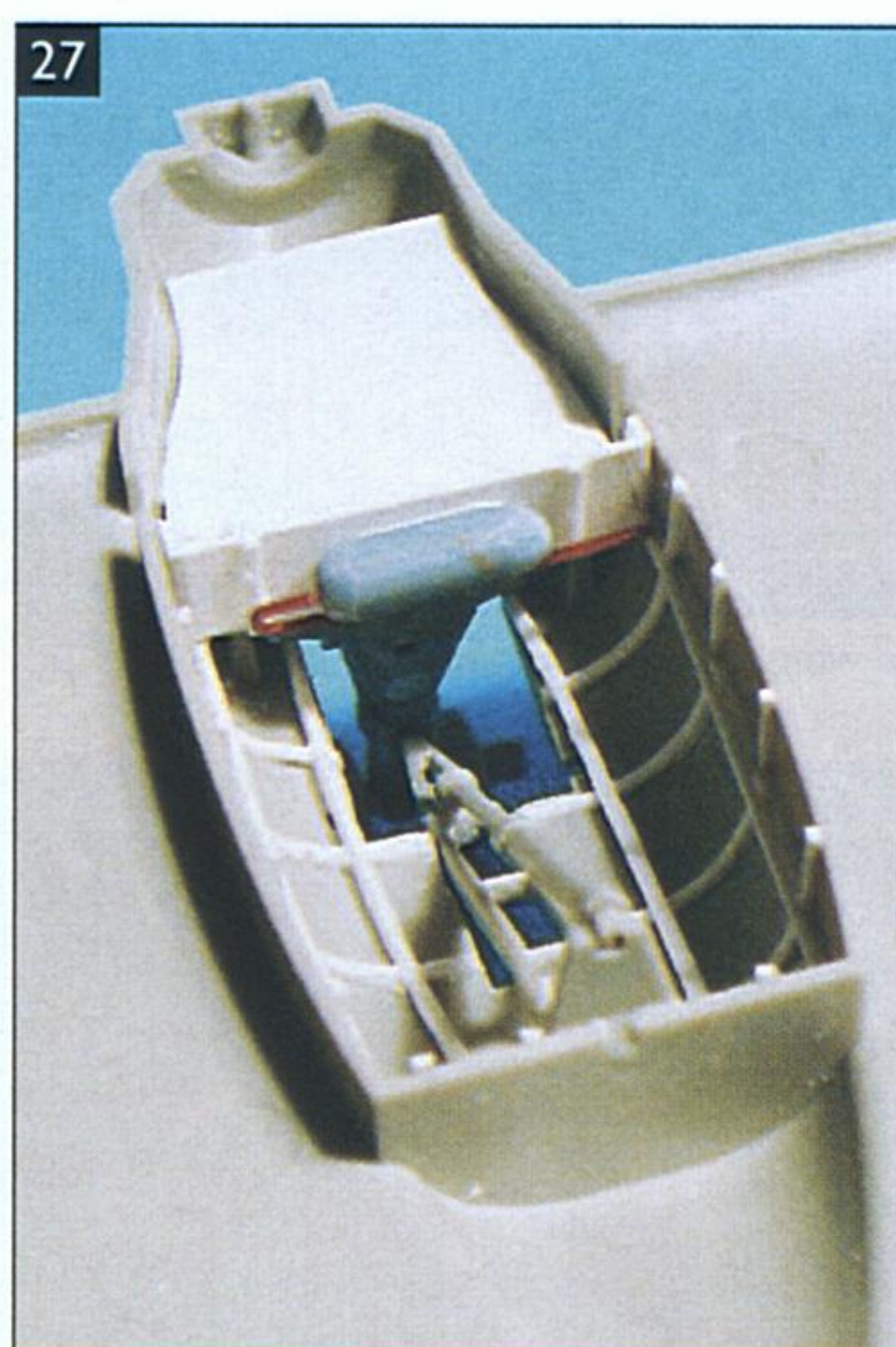
...and to the loading ramp



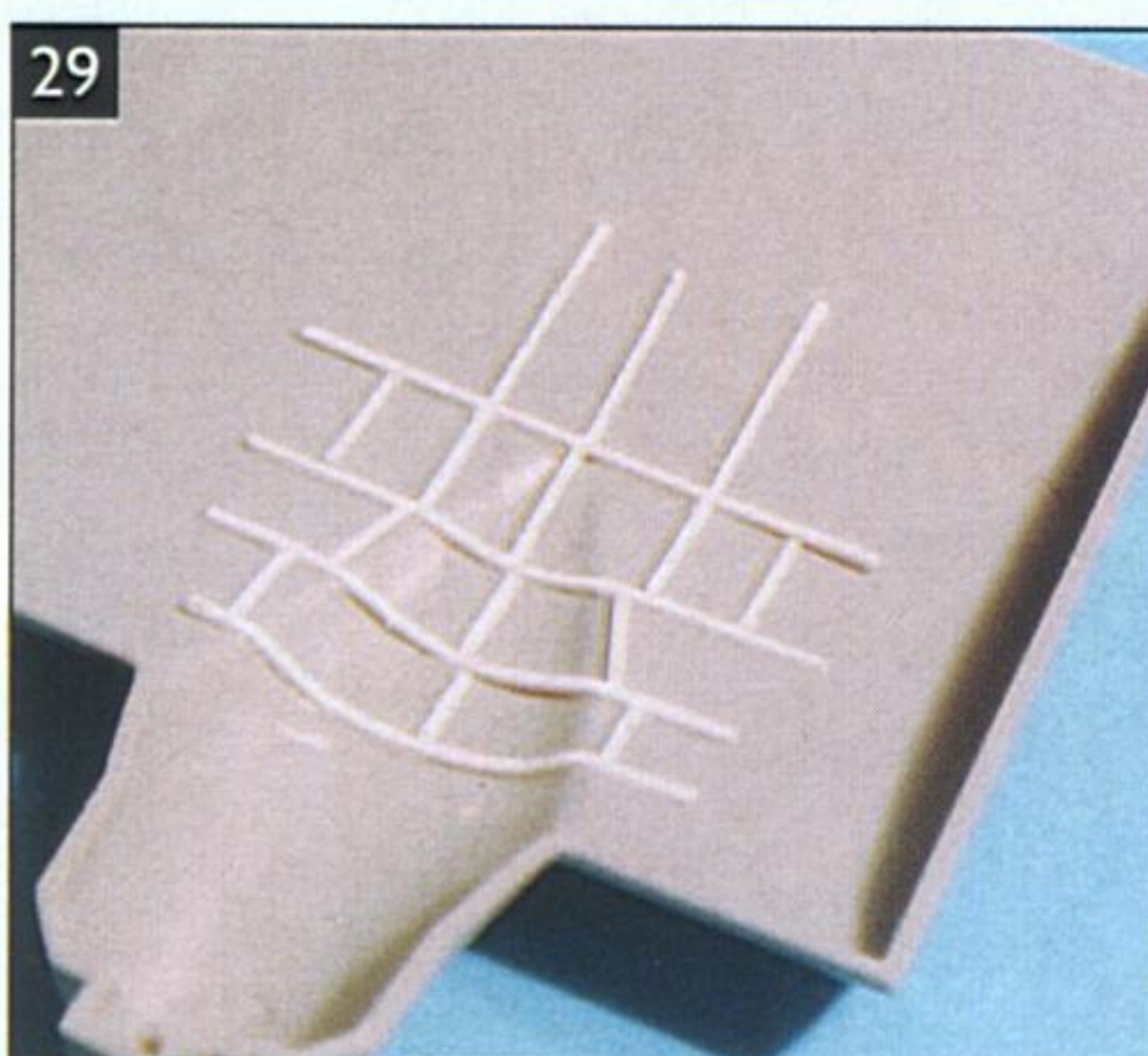
25 I added the ammunition boxes and walkway in the rear turret



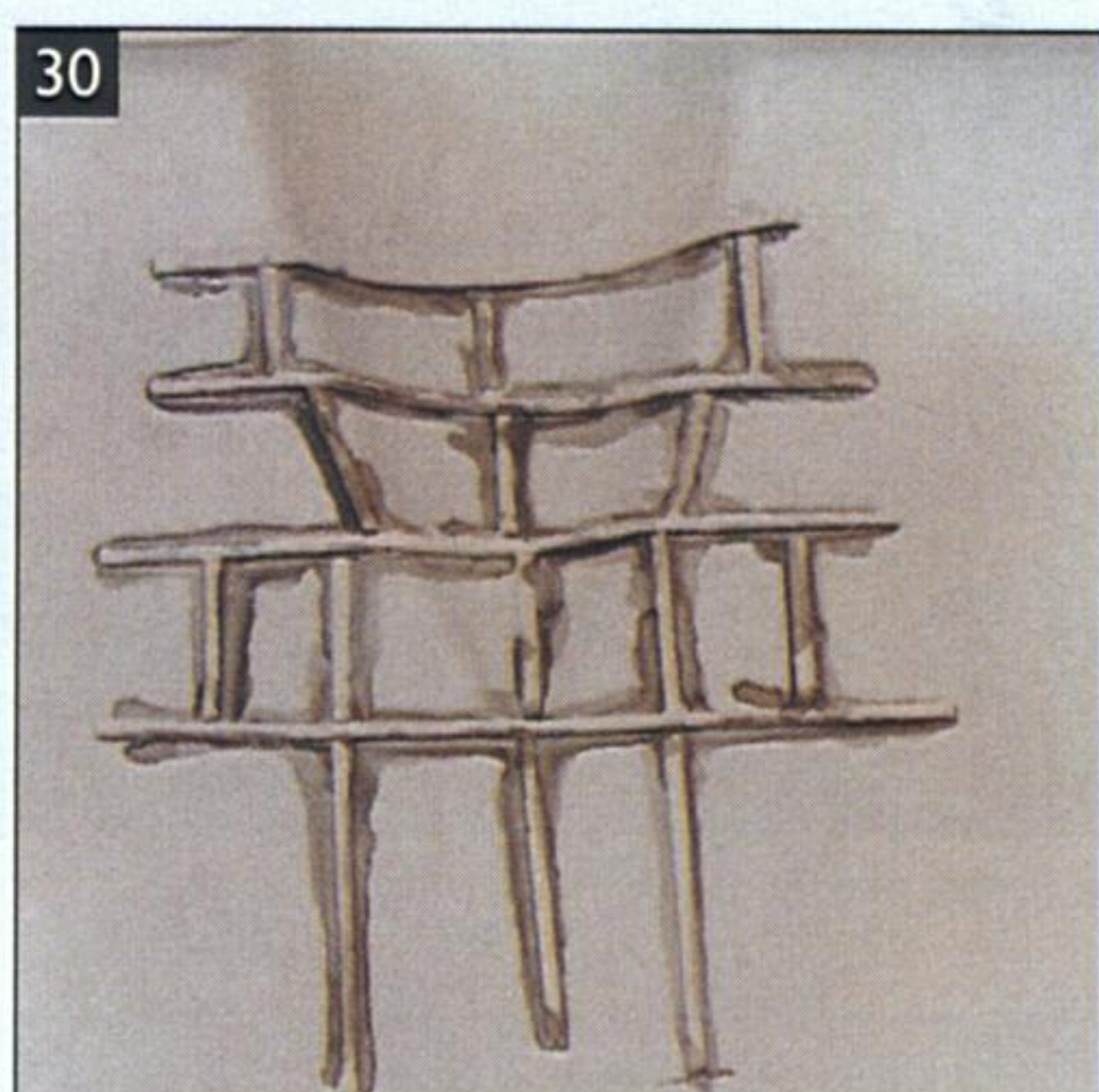
26 The undercarriage bays are pretty bare as supplied



28 I added ribs and other details from scraps of plastic and plastic strips



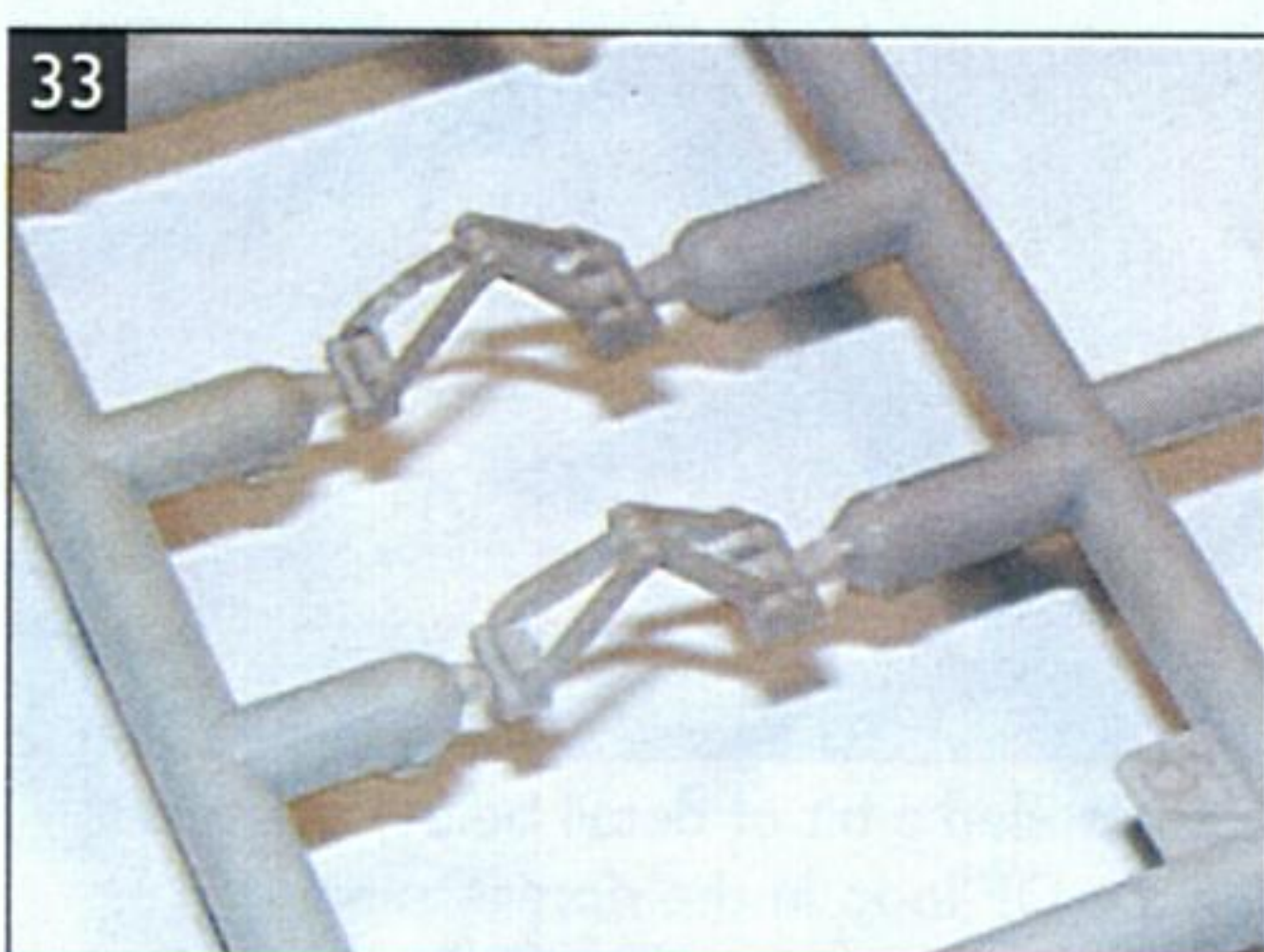
29 The upper roof of each bay will be the underside of the upper wing panel, so I added ribs here as well...



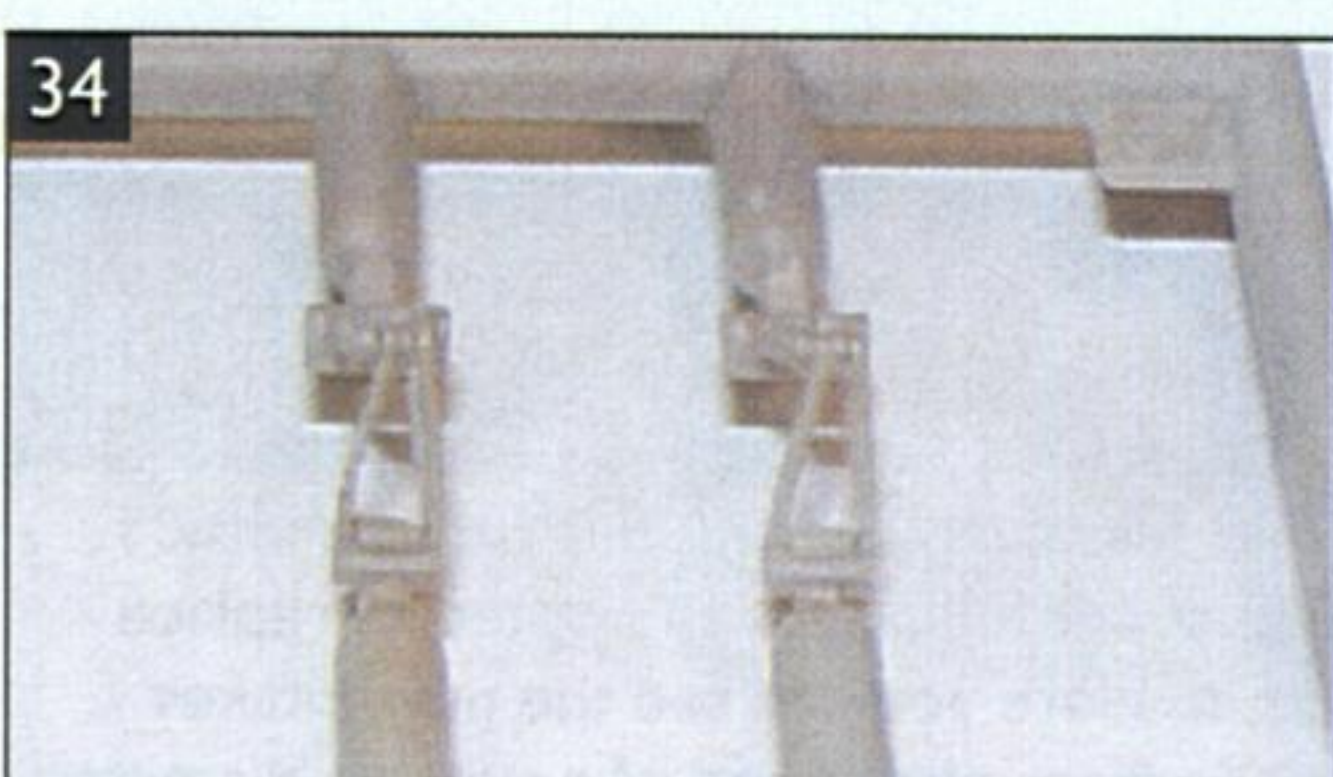
30 ...and later give these a wash of black



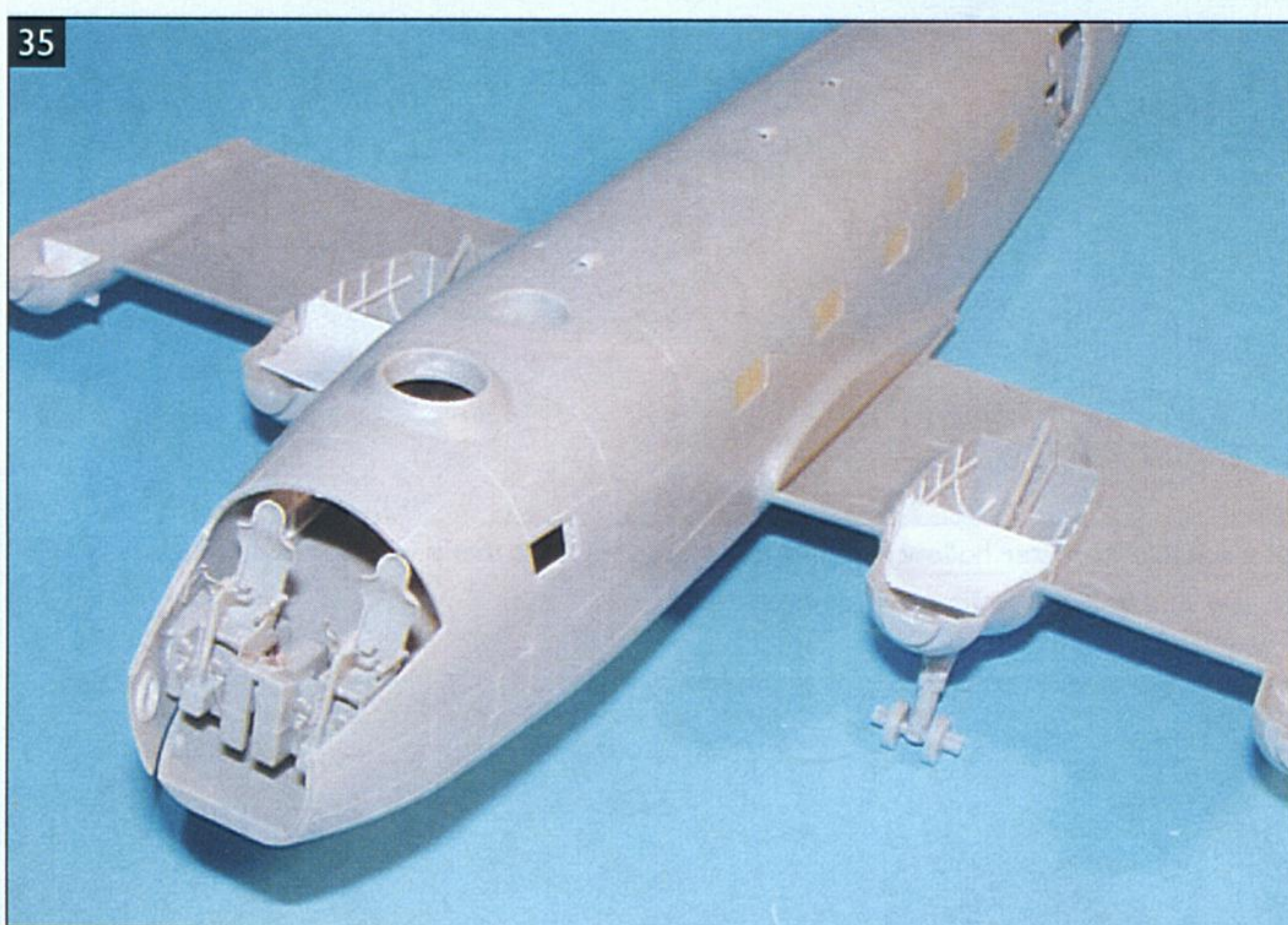
The type of undercarriage struts given in the kit (Part #68) is of a solid form only seen on the prototypes, so I carefully drilled and cut these out to more accurately represent a production Ju 290...



33 I also cut out the recesses in the oleo compression linkage (Part #67) to better replicate the real aircraft



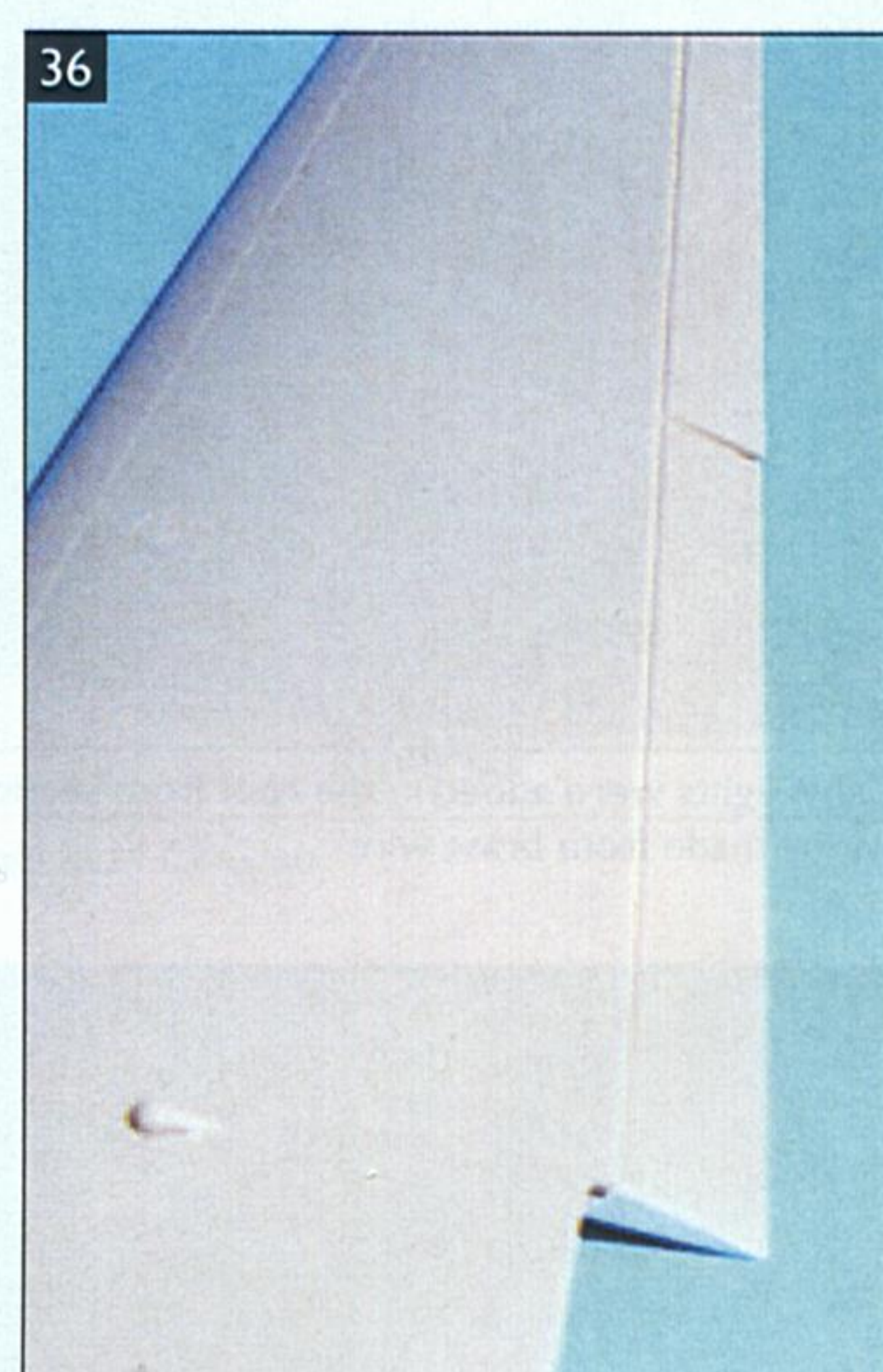
wing panel, so I added ribs here as well (See Photo 29) and later gave these a wash of black (See Photo 30) followed by an over spray of RLM 02 and some drybrushing. Once again Revell seem to be in contradiction with my references, as the type of undercarriage struts given in the kit (Part #68) is of a solid form only seen on the prototypes? I therefore opted to carefully drill and cut these out to more accurately represent a production Ju 290 (See Photo 31), although I managed to break one in the process (See Photo 32) so be careful! I also cut out the recesses in the oleo compression linkage (Part #67) to better replicate the real aircraft (See Photos 33 & 34). With all now going pretty well I could not resist doing a dry fit of the wing centre section to the fuselage to gauge the size of this model (See Photo 35)... it is big! Work on the wings continued and because of how Revell have tooled



35 My dry fit of the wing centre section to the fuselage



32 ...although I managed to break one in the process



these you can actually droop the ailerons by simply scoring them inside and bending them carefully down and/or up. This allows for a pretty simple and very effective displacement of the control surfaces (See Photos 36, 37 & 38). I would advise adding a backing piece inside each wing though, as they can be easily squashed together without it. The undercarriage legs were secured in place (See Photo 39) and the sad (for me anyway) process of removing the moulded vents in the lower wing panels began. Initially I wanted to make these thinner, so removed the areas from the kit parts and set about making new ones from thin plasticard. I did this, secured them and all was well. Then I started looking at images of Ju 290s in service and I could not see one of these with them open when they were on the ground! Off they came and the areas were simply blanked in with plasticard (See Photo 40). The inboard flaps were

cut from the wings and the back edges built up with plasticard (See Photo 41) and later these were placed back into the wing at a dropped stance. The final task before major assembly was started was to install the underwing aerials (Part #115) and then promptly cut them off! This was simply because they were overthick for this scale and were thus replaced with brass wire (See Photo 42).

Assembly of all the major components was pretty straightforward, but the join of the lower wing/fuselage is poor and the 'keys' included in both parts do not lock together well, resulting in a 'dip' at this point. I was not able to pull this out, so I resorted to filler which destroyed the lovely recessed panel lines in this area. Once all was together as far as I wanted it, the model was painted.

Decal Options

The kit offers the following decal

options

- 9V+BH of 1./FAGr.5 during Operation Raggentin during March 1945.
- 9V+KH of 1./FAGr.5 seen at Rechlin in November 1945.
- KR+LK, W/Nr. 0180 of 1./FAGr.5 in September 1944.
- A3+FB of 1./KG200 based at Wiener Neustadt in January 1944.

I had to go for the first option as I seem unable to build Luftwaffe subjects without a mottling on the fuselage sides! For a change Revell actually identify the colours by RLM codes, so my chosen option was RLM 74 and 75 over RLM 65 with a dense squiggle of RLM 83 on the fuselage sides and finlets. This was duly applied to my aircraft using suitable colours from Polly Scale for the main colours but, like John McIlmurray, I find acrylic no good for mottling, so opted to use RLM 83 from Xtracolor for that. My only concern here is did they mean RLM 83 as a light green or RLM 83 as a



Colour Chart

Using the Testors Modeler's Technical Guide, IPMS Color Cross Reference Guide and colour charts from Lifecolor and Vallejo we can cross-reference the colours used in the above build article into the following available paint ranges.

RLM 02 Grau

Acrylic

AeroMaster 1010, Floquil 505075, Gunze Sangyo H70, Lifecolor UA071, Model Air (Vallejo) 044 and Tamiya XF22

Enamel

AeroMaster 9020, Floquil 303271, Humbrol 92 and Xtracolor X201

RLM 65 Litchblau (FS35256)

Acrylic

AeroMaster Warbird Acrylic 1021, Gunze Sangyo (Mr Color) H67, Lifecolor UA061, Niche 5911, Poly Scale 505051, Vallejo (Model Air) 008

Enamel

AeroMaster Warbird Color 9021, Floquil Classic 303245, Humbrol 65, Model Master Enamel 2078, Xtracolor X202.

RLM 66 Schwartzgrau

Acrylic

AeroMaster 1022, Lifecolor UA133, Model Air (Vallejo) 055, Model Master 50123, Niche 5906 and Poly Scale 505014

Enamel

AeroMaster 9022, Floquil 303273, Humbrol 32, Model Master 2079 and Xtracolor X203

RLM 70 Schwartzgrun

Acrylic

AeroMaster 1023, Gunze Sangyo H65, Lifecolor UA051, Model Air (Vallejo) 021, Monogram ProModeler 88-0043, Niche 5909, Poly Scale 505055, Poly S 500086 and Tamiya XF27

Enamel

AeroMaster 9023, Floquil 303241, Humbrol 91, Model Master 2080 and Xtracolor X204

RLM 74 Graugrun

Acrylic

AeroMaster 1025, Gunze Sangyo H68, Lifecolor UA, Model Air (Vallejo), Niche 5908, Poly Scale 505059 and Poly S 500084

Enamel

AeroMaster 9025, Floquil 303247, Humbrol 27, Model Master 2084 and Xtracolor X206

RLM 75 Grauviolett

Acrylic

AeroMaster 1026, Gunze Sangyo H69, Lifecolor UA, Model Air (Vallejo), Niche 5905, Poly Scale 505060 and Poly S 500707

Enamel

AeroMaster 9026, Floquil 303249, Humbrol 106, Model Master 2085 and Xtracolor X207

RLM 82 Dunkelgrun (*)

Acrylic

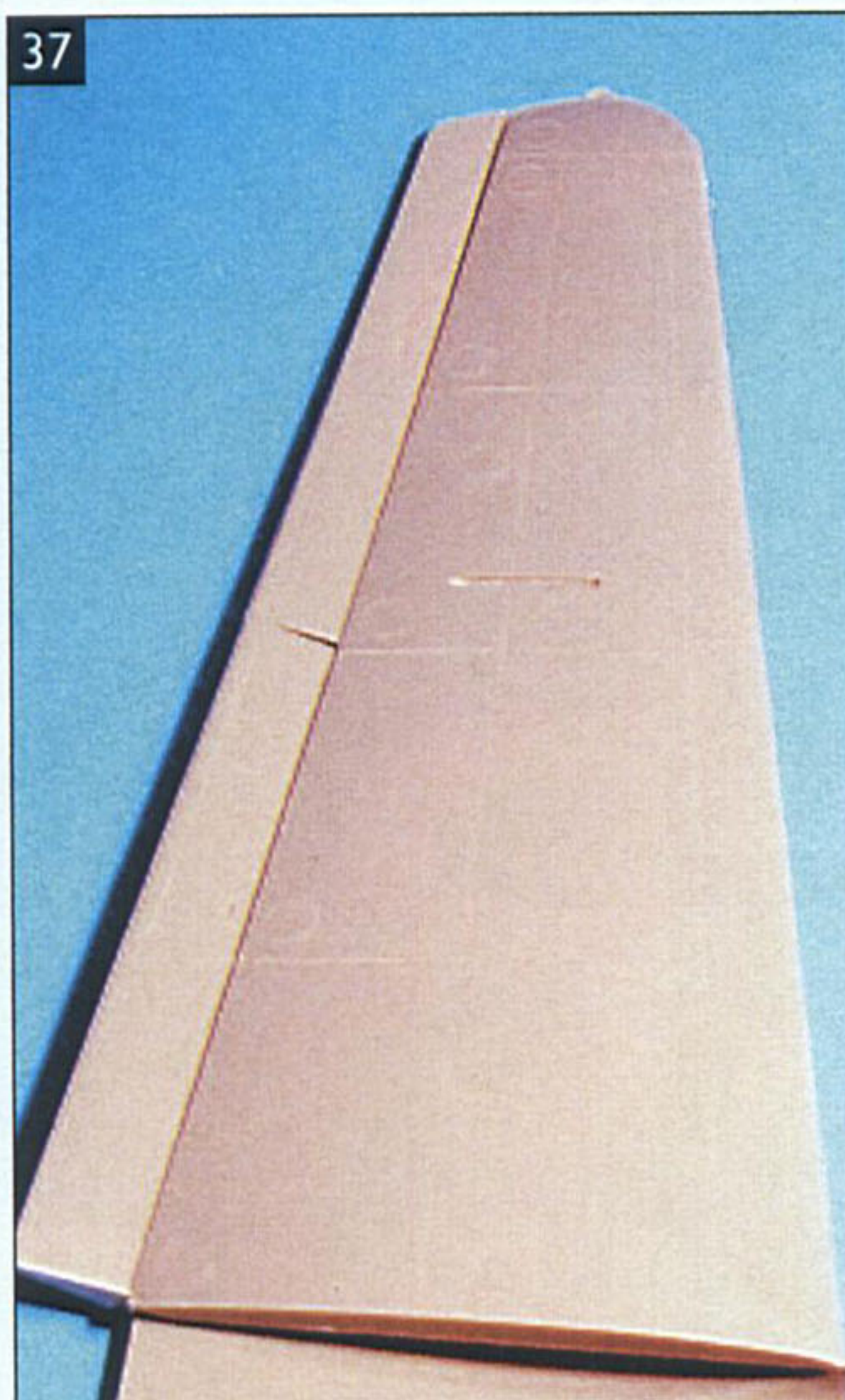
AeroMaster 1033, Lifecolor UAU054, Model Air (Vallejo) 013, Niche 5902 and Poly Scale 505071

Enamel

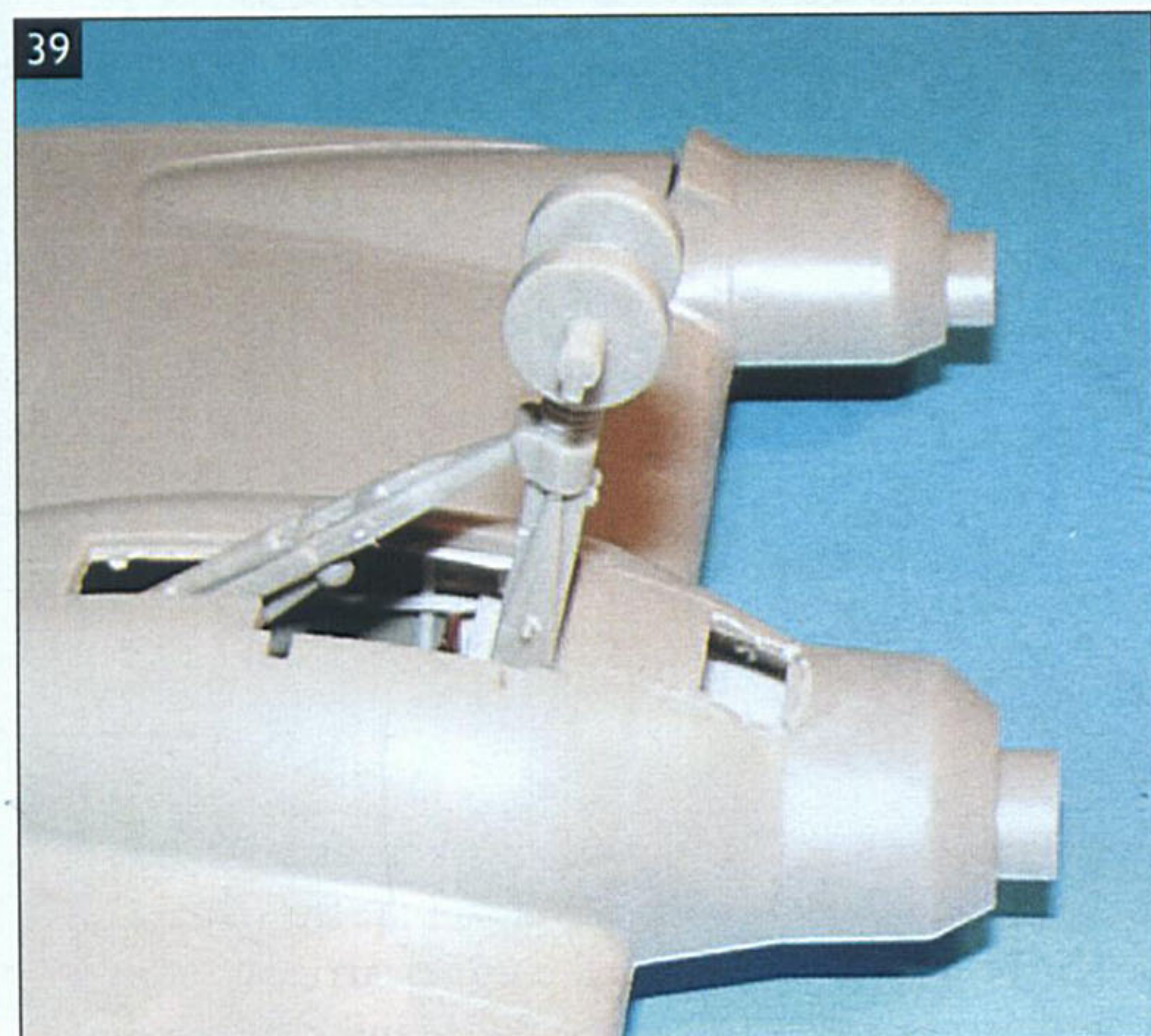
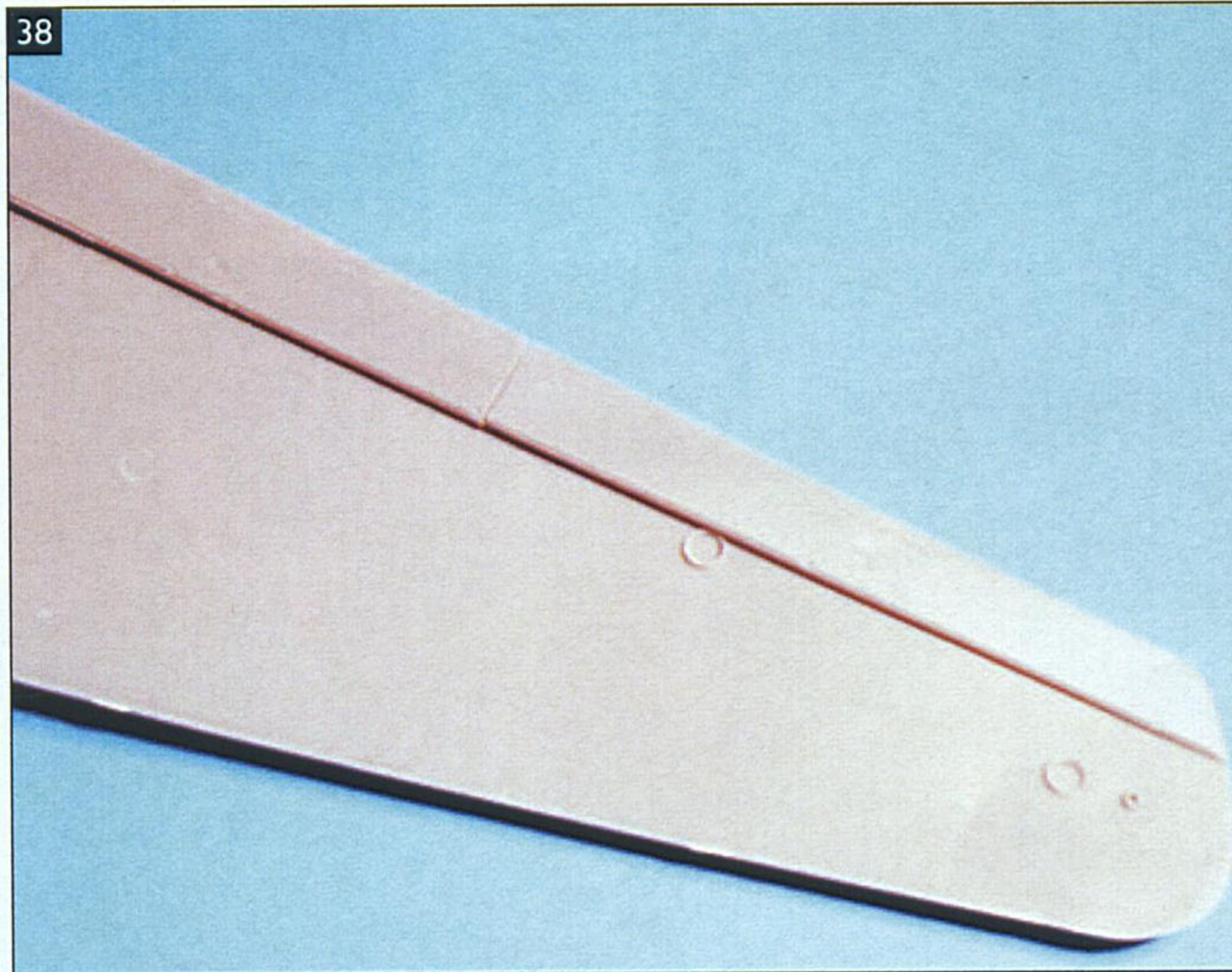
AeroMaster 9030, Floquil Classic 303265, Humbrol 116, Model Master 2091 and Xtracolor X211

Note: Federal Standard (FS) numbers quoted are only to be taken as approximations, as the FS system did not exist when these colours were originally manufactured.

* The current trend is that RLM 83 is in fact Dunkelgrun (previously RLM 82) and RLM 82 is Lichtgrun (previously RLM 83). We have retained the old system of identification however, with RLM 83 remaining a light green. Note however that Model Air (Vallejo) list Dunkelgrun as RLM 83 and Lichtgrun as RLM 82, but we have shown them the other way around!



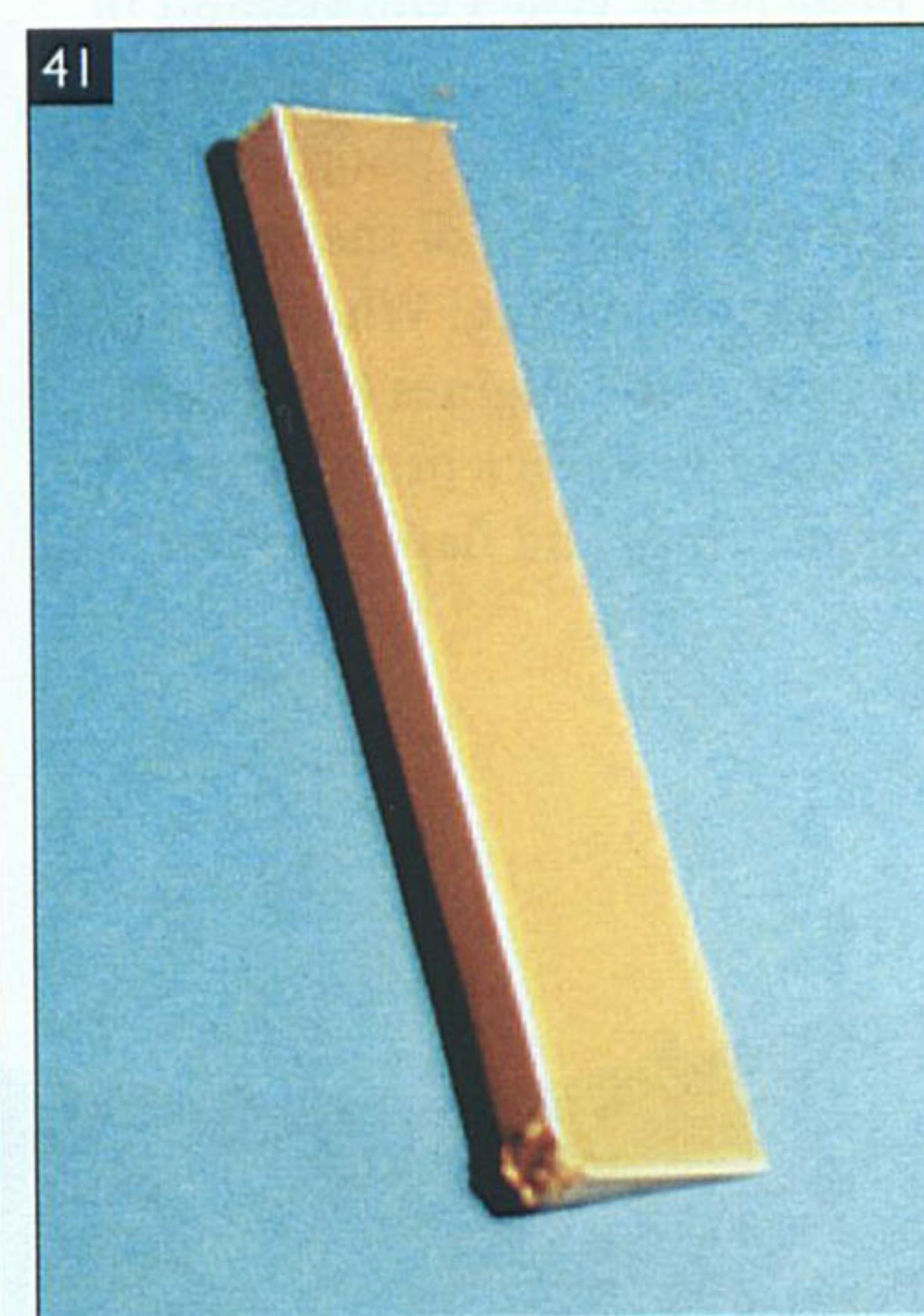
You can droop the ailerons by simply scoring them inside and bending them carefully down and/or up



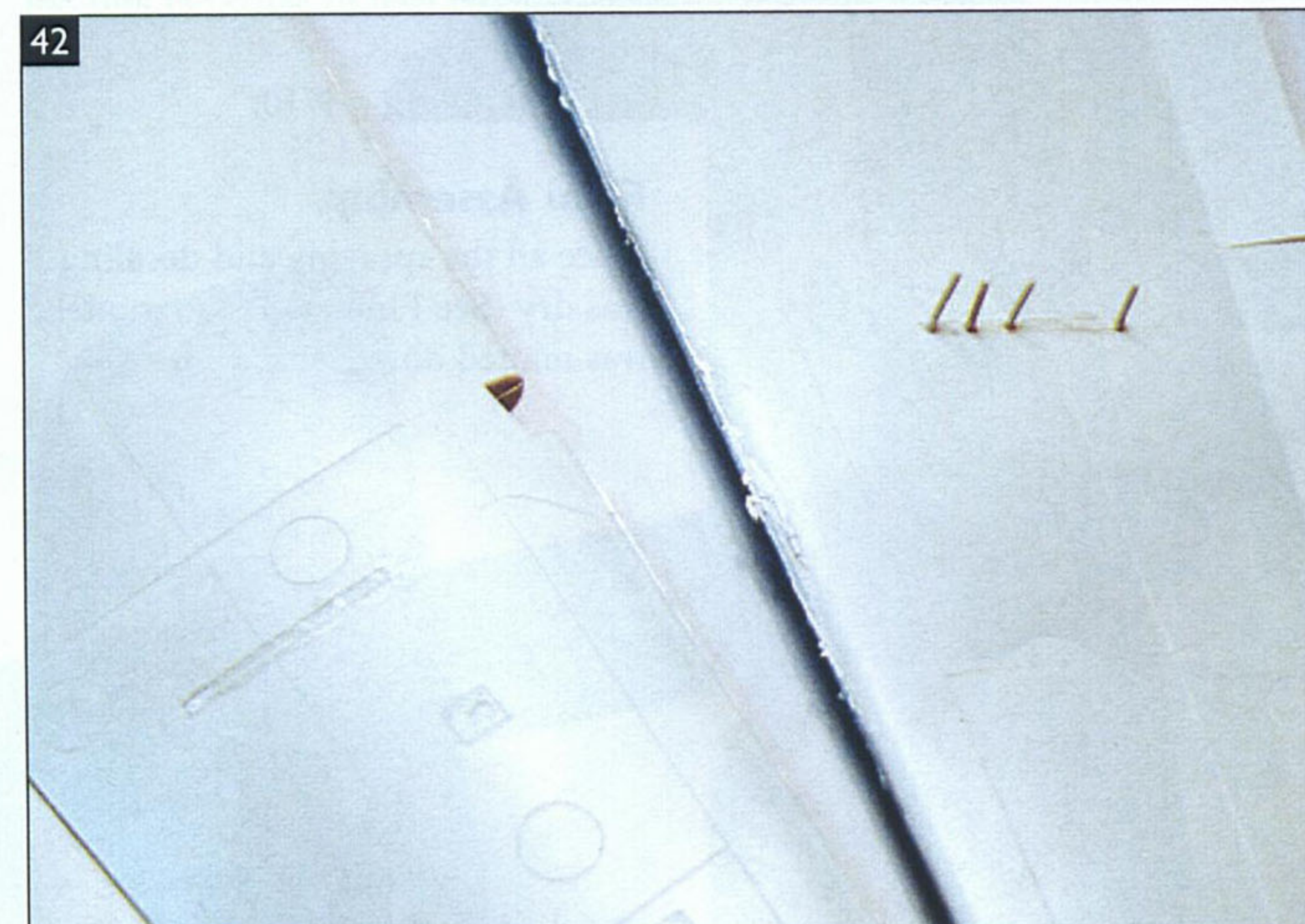
The undercarriage legs were secured in place



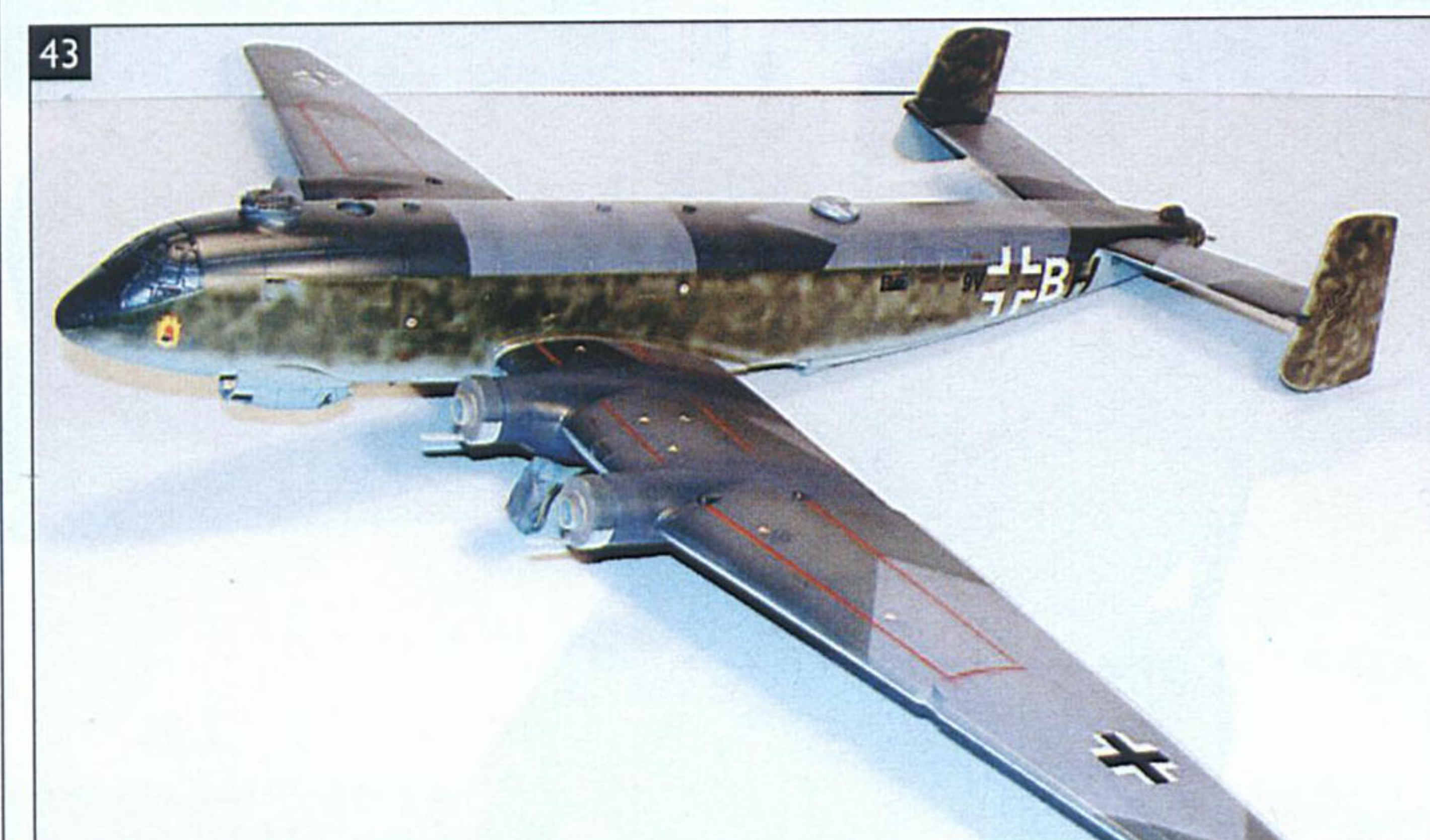
Having wasted time opening and thinning down the vents in the lower wings I then found they were usually shut when the aircraft was on the ground, so filled them in again!



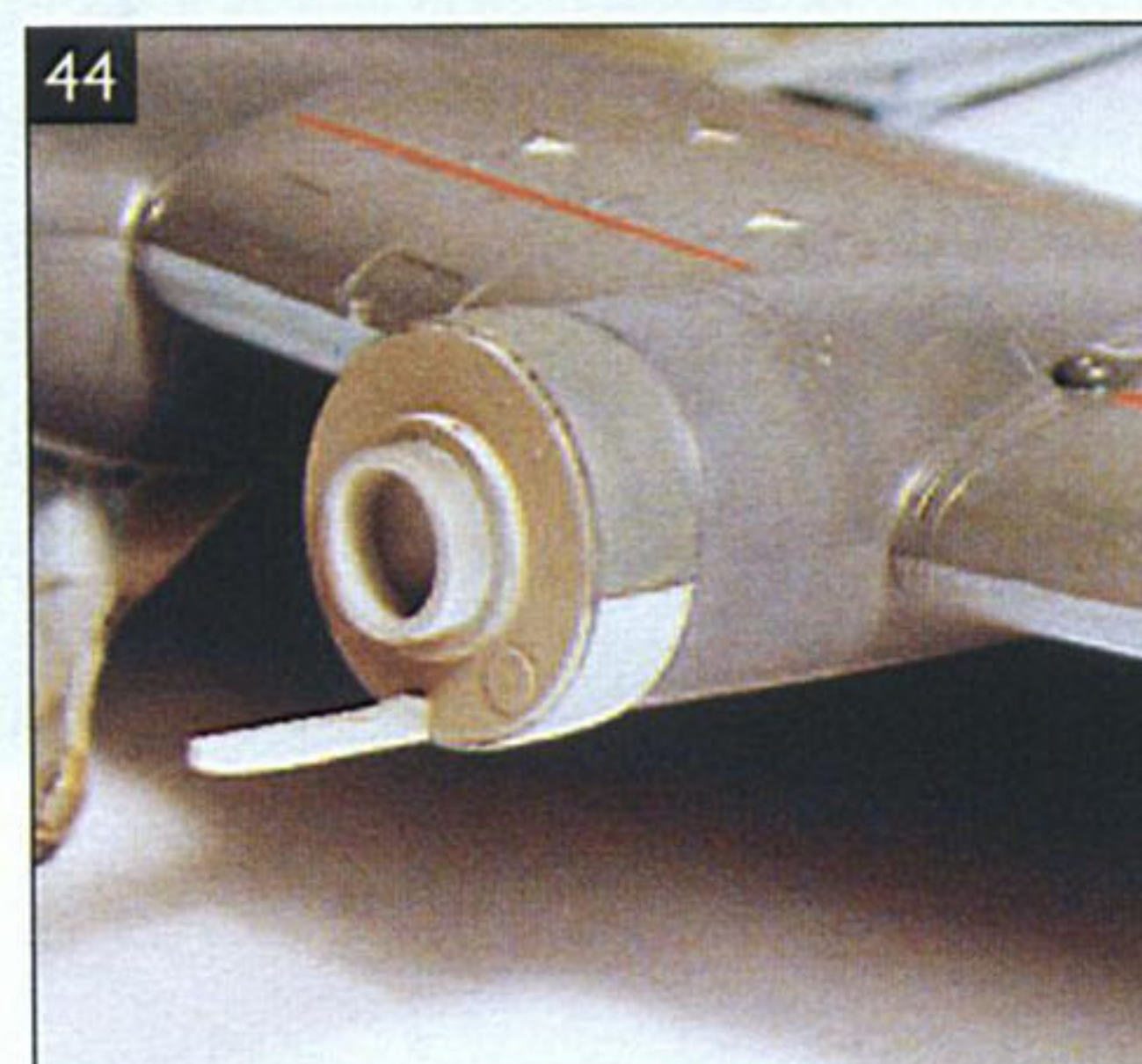
The inboard flaps were cut from the wings and the back edges built up with plasticard



The underwing ailerons (Part #115) were installed, but were then cut off as they would later be replaced with brass wire



The model once the initial stages of spraying and decaling were completed



If the engine backplates (Part #83) are fitted to the exhaust rings and flaps (Part #82) as supplied a large gap will be seen around the entire cowl, I simply filled these gaps with lengths of 10thou plastic strip and then resprayed the areas

dark green? This may sound odd, but the current trend is that RLM 82 and 83 are reversed, so that what was 83 (light green) is now 82 and RLM 82 (dark green) is now 83 - confused!

Once the spraying was completed the model was sealed with Johnsons Klear and the decal were applied. Revell give you masses of stencils for this kit, but forget them, as they are all too small and life is too short! I replaced the red wing walkways with masked and sprayed areas and I did add the larger stencils associated with these to my model. The main markings are great, but be warned if you make the option I chose, as revell would have you put the shields on the nose on the wrong sides. Decal 9 should go on the starboard side, while 13 goes on the port. The sheet does not include any swastikas for the tail (remember the

swastika is illegal in Germany), so I added ones of a suitable size and style from an AeroMaster sheet. The kit decals all went on with ease, were well printed with perfect register and reacted well to Mico Set and Sol solutions.

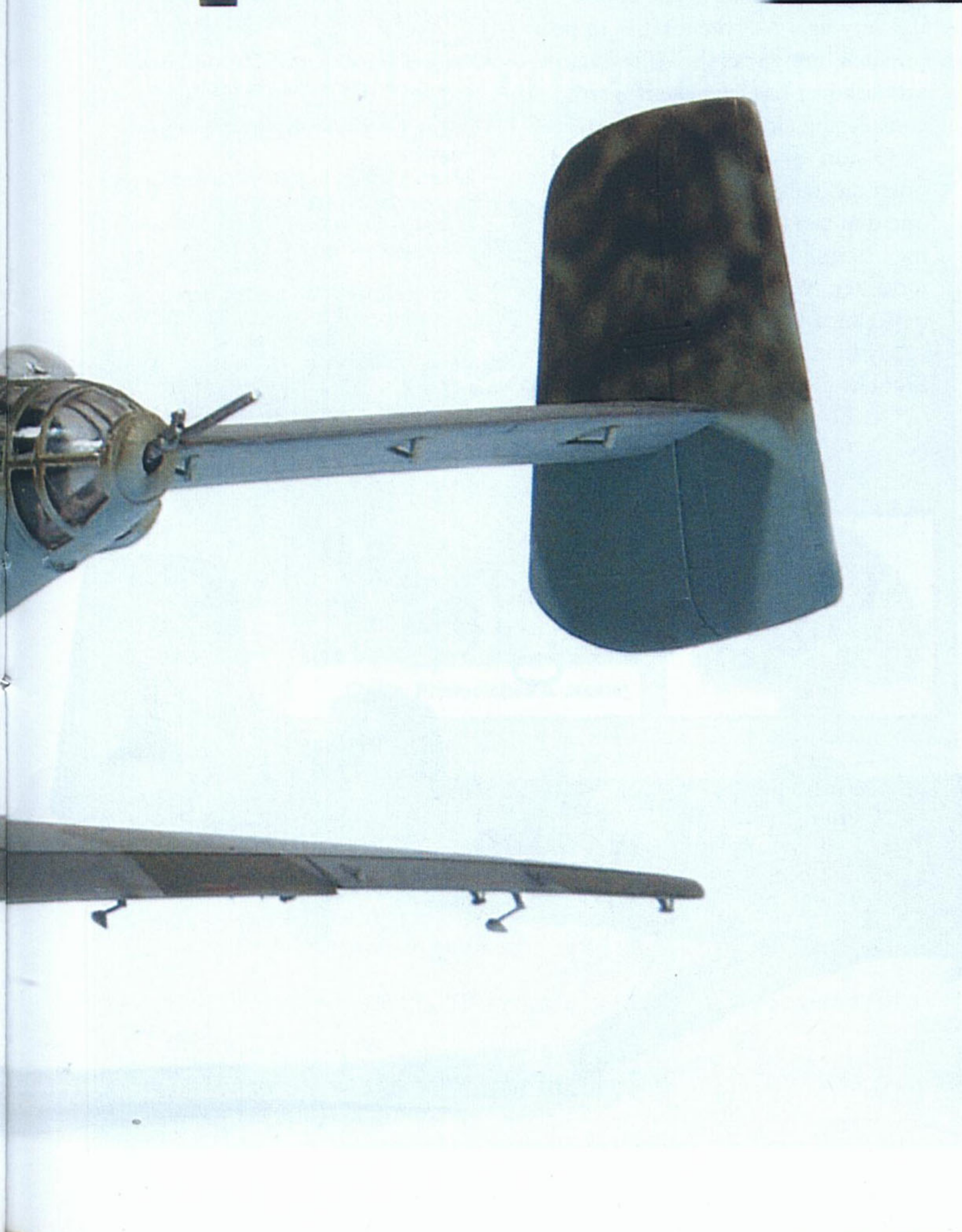
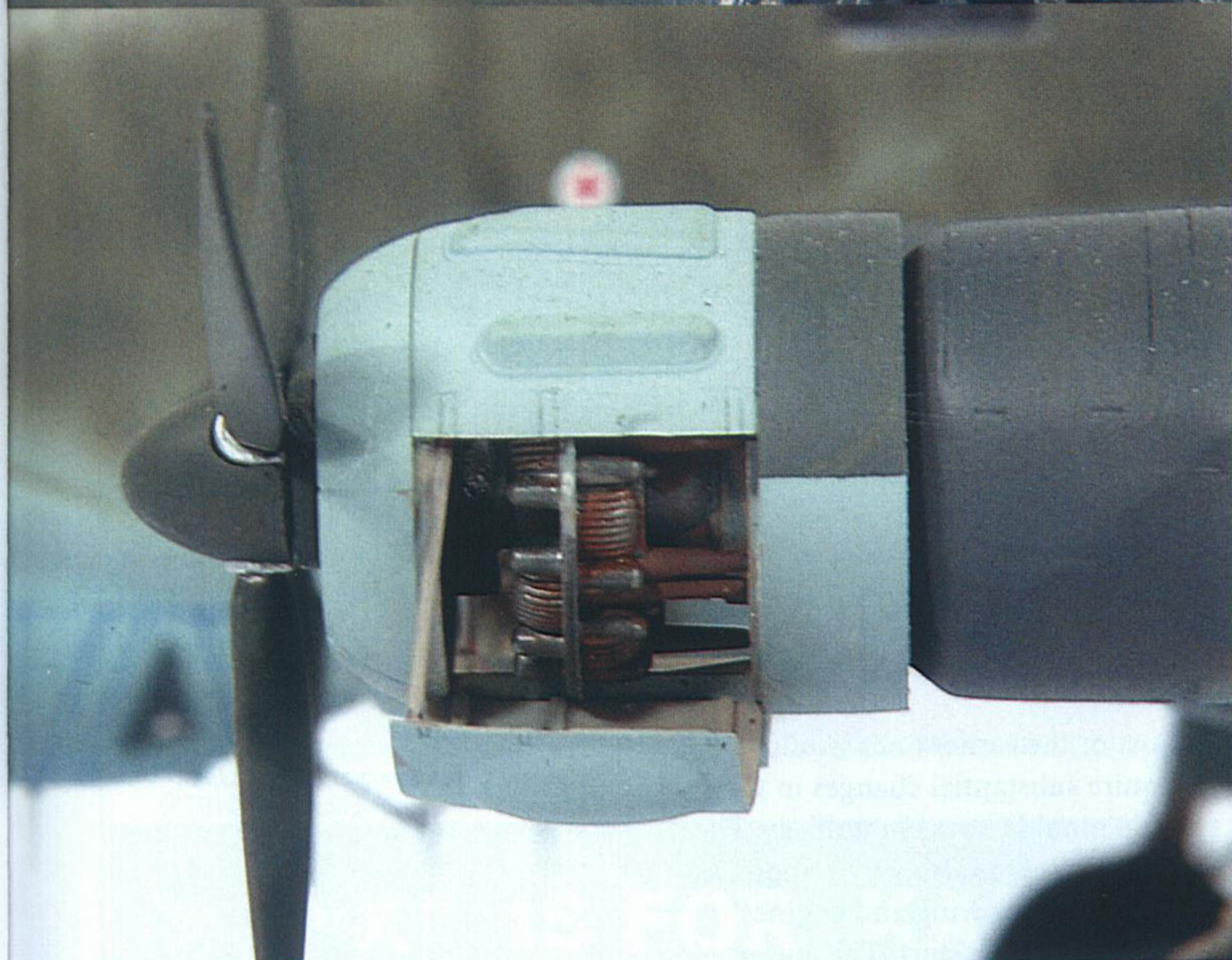
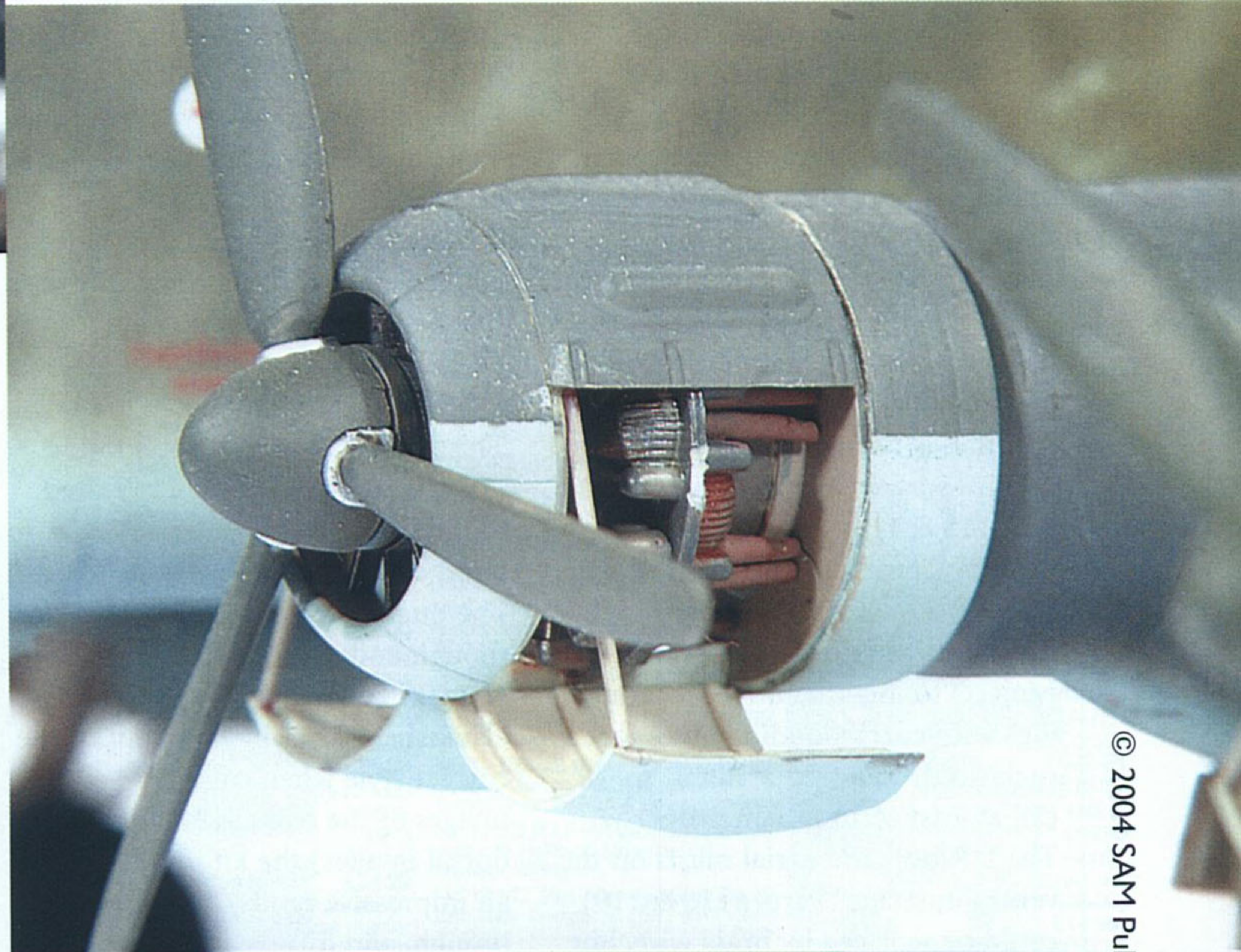
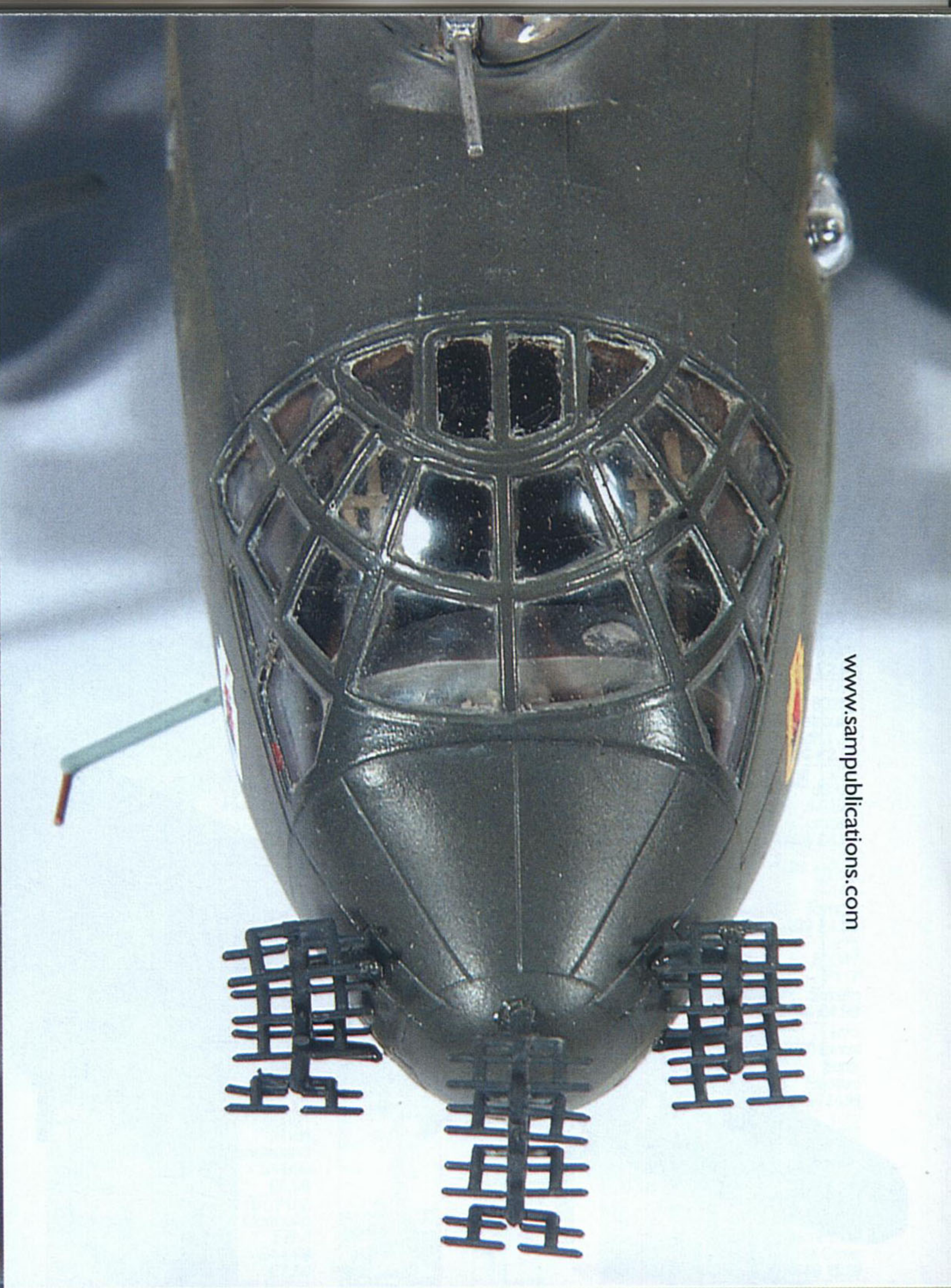
Decal Rating = 9/10.

Final Assembly

Once all the spraying and decaling was dry (See Photo 43) the model was matted down with a coat of

Polly Scale matt varnish. Then I set about adding all the detail parts, such as the undercarriage doors, rear cargo doors and ramp, engines, turrets etc. This is when I discovered a huge error. When you try and fit the engines to their backplates you will find the fit is so poor that a huge recess results all the way around the cowling! Whoever tooled the rear of the engines (Part #83) did not give sufficient recess for the exhaust rings and flaps (Part #82) to







fit properly. At this stage in the game I was not chopping things about, so I simply filled the gaps with lengths of 10thou plastic strip and then (cursing) resprayed these areas. Yes the cowling is too wide I know, so be warned (See Photo 44).

All the smaller parts were added, but I must admit that in the process of moving this kit about since most have fallen or been broken off. The control surface linkage (Parts #110, 111, 113 & 114) has such pathetic locating points that they just break off with ease. I would prefer Revell to take a little time with future projects to include proper locating lugs with corresponding holes for such fiddly and fragile items, so we can at least secure them properly. The DF loop and aerial masts on the ventral fuselage (Parts #116 & 119) could be replaced by brass wire, but in the end I felt they were OK. I had also originally intended to replace the kit-supplied radar array with a

scratchbuilt one, however when the time came I felt I should show the kit example so at least you can judge for yourself if you want to replace it. I personally would, although making it in wire would be a nightmare and etched is of course too two-dimensional.

Conclusion

This is, overall, a very good kit. It does suffer with over-complicated tooling and as a result is not 'easy' to build even straight from the box. The quality of the tooling helps though and although there are errors (like the engine cowlings, exhaust stacks [which are not of the correct style when compared with images of the real aircraft] and the dorsal intakes) the kit builds up into an impressive model. It is big though, and dwarfs a Lancaster in the same scale!

I can only hope that Revell intend to issue other versions, although

most of the earlier ones would require substantial changes in the basic moulds, so seem unlikely. The Ju 90 airliner is also very remote, as it needs a new wing and engines before you even start. The appeal of the very ugly A-7 version has to be a possible though, as the 'Allies Kaput' artwork just has to make it worth considering alone?

To sum up this is a complex and often difficult model to make, but one that can be recommended to the intermediate and advanced modeller. Now Revell, how about a new Lancaster in this scale?

My thanks to Revell AG (UK Branch) for the review sample.

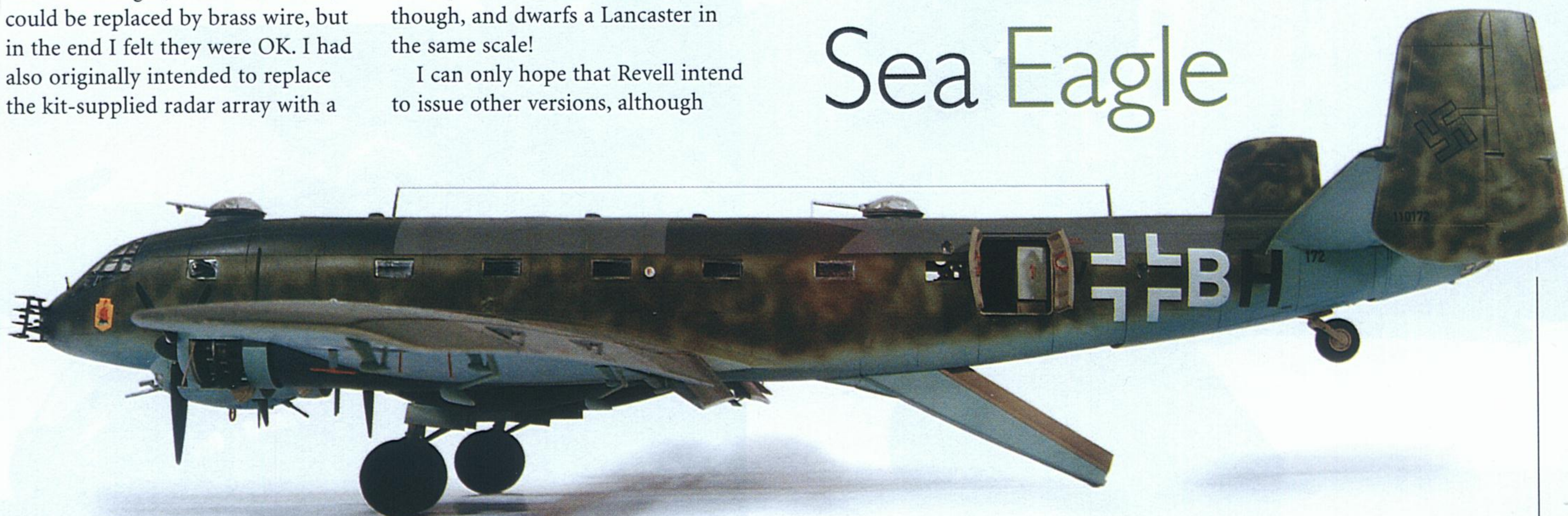
Richard A. Franke

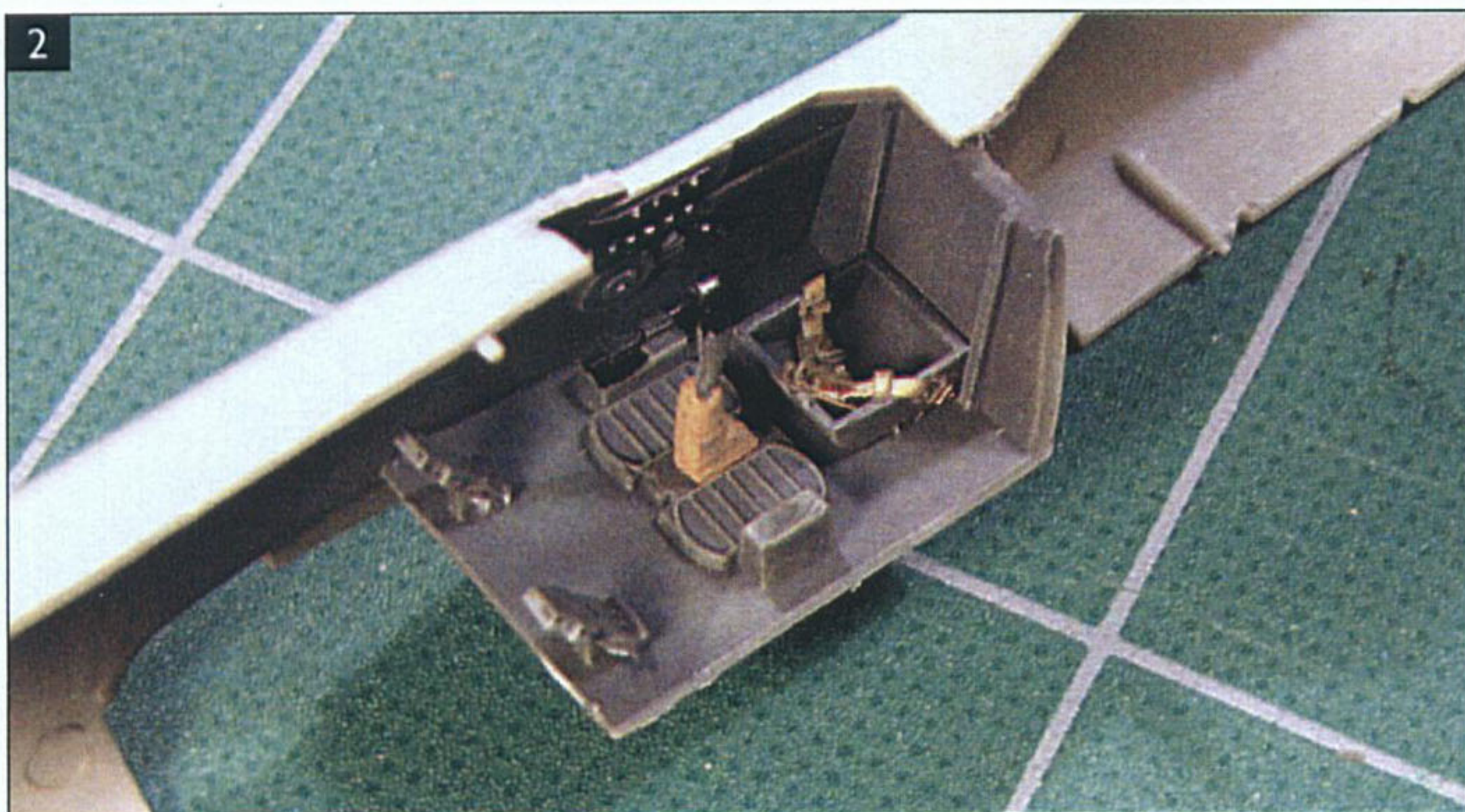
References

- Junkers Ju 290, Monogram Close-Up 3, Monogram Aviation Publications, ©1975, ISBN 0-914144-03-0
- German Aircraft Landing Gear by Günther Sengfelder, Schiffer Publishing Ltd, ©1993, ISBN 0-88740-470-7 (*)
- Warplanes of the Luftwaffe edited by David Donald, Aerospace Publishing Ltd, ©1994, ISBN 1-874023-56-5
- Wings of Peace - Junkers Ju 90 by John Stroud, Aeroplane Monthly, September 1988
- Junkers Ju 90 by Manfred Griebel, Flugzeug magazine 4/91
- Junkers Ju 290 & Ju 390 by Manfred Griebel Pt. 1, Flugzeug magazine 5/91
- Junkers Ju 290 & Ju 390 by Manfred Griebel Pt. 2, Flugzeug magazine 6/91

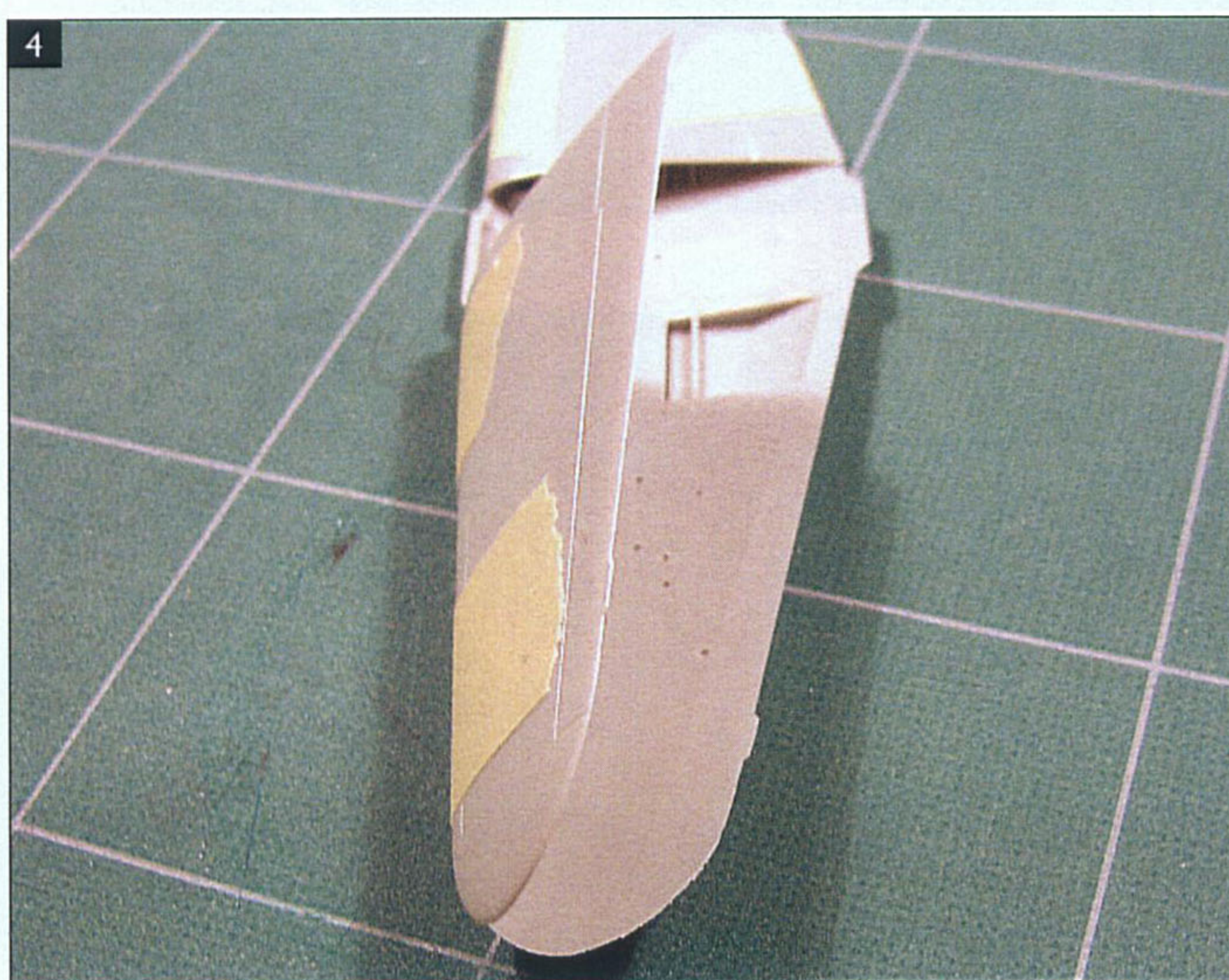
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Sea Eagle





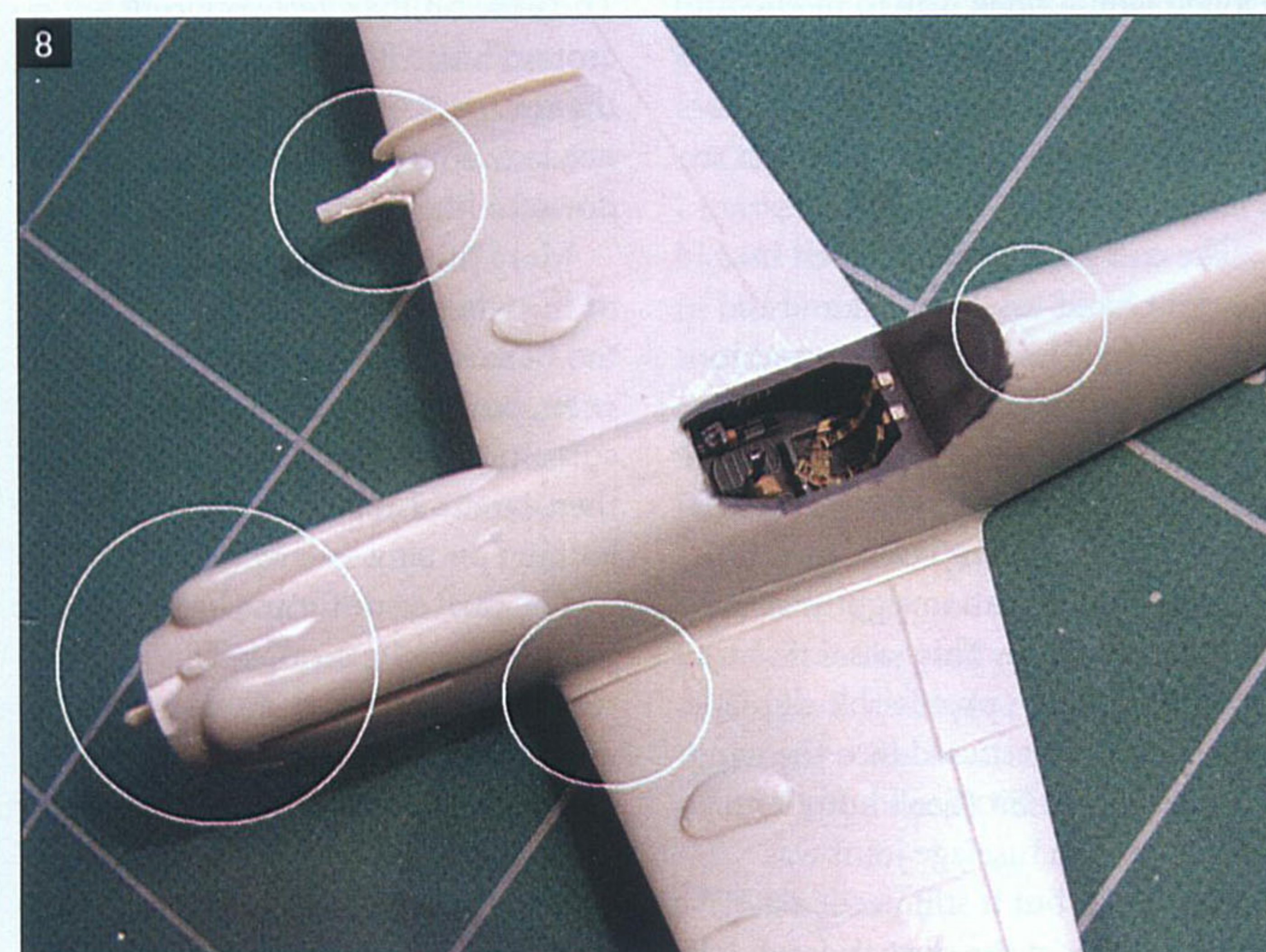
Cockpit interior



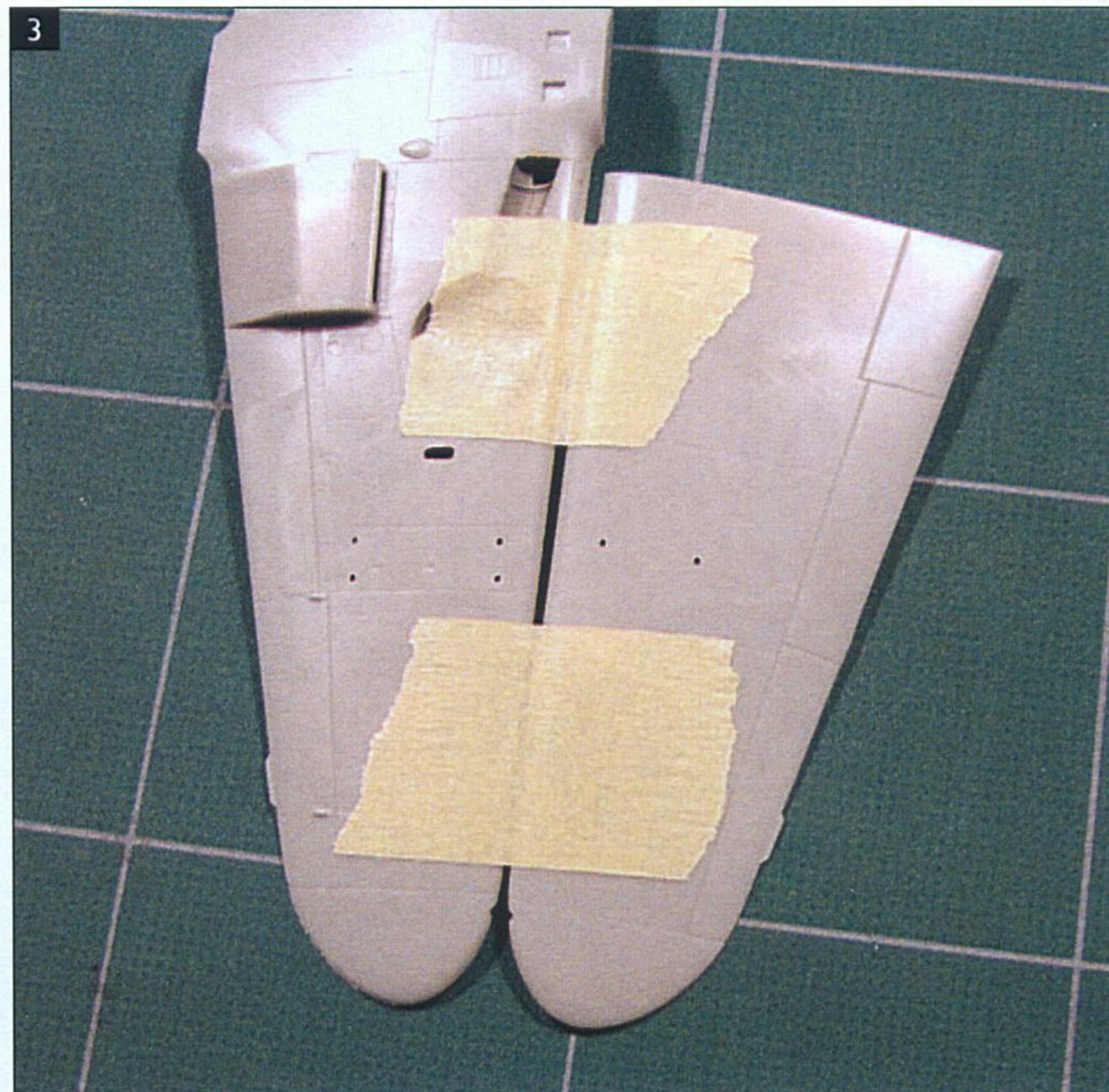
Easy



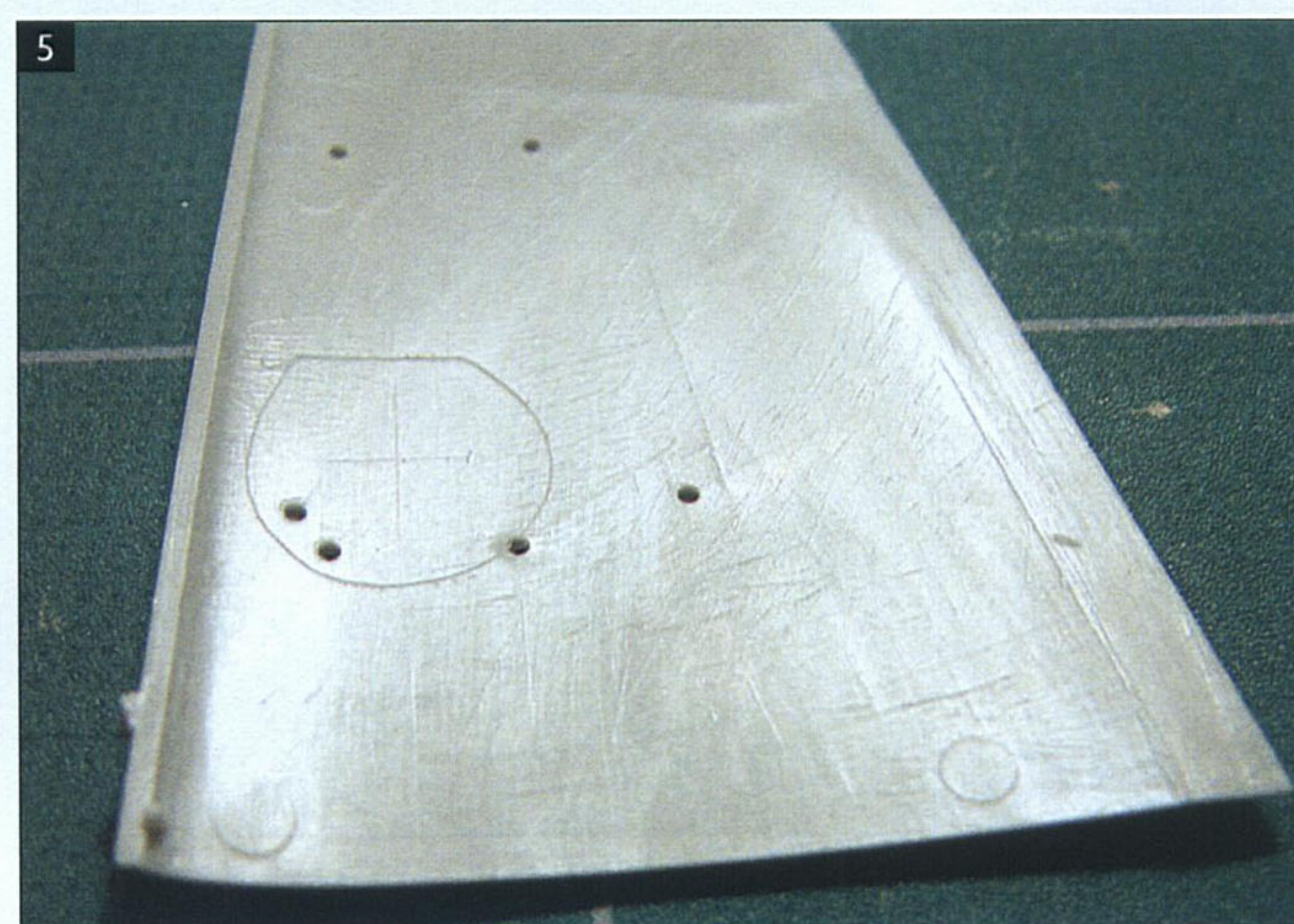
Clamped up to set



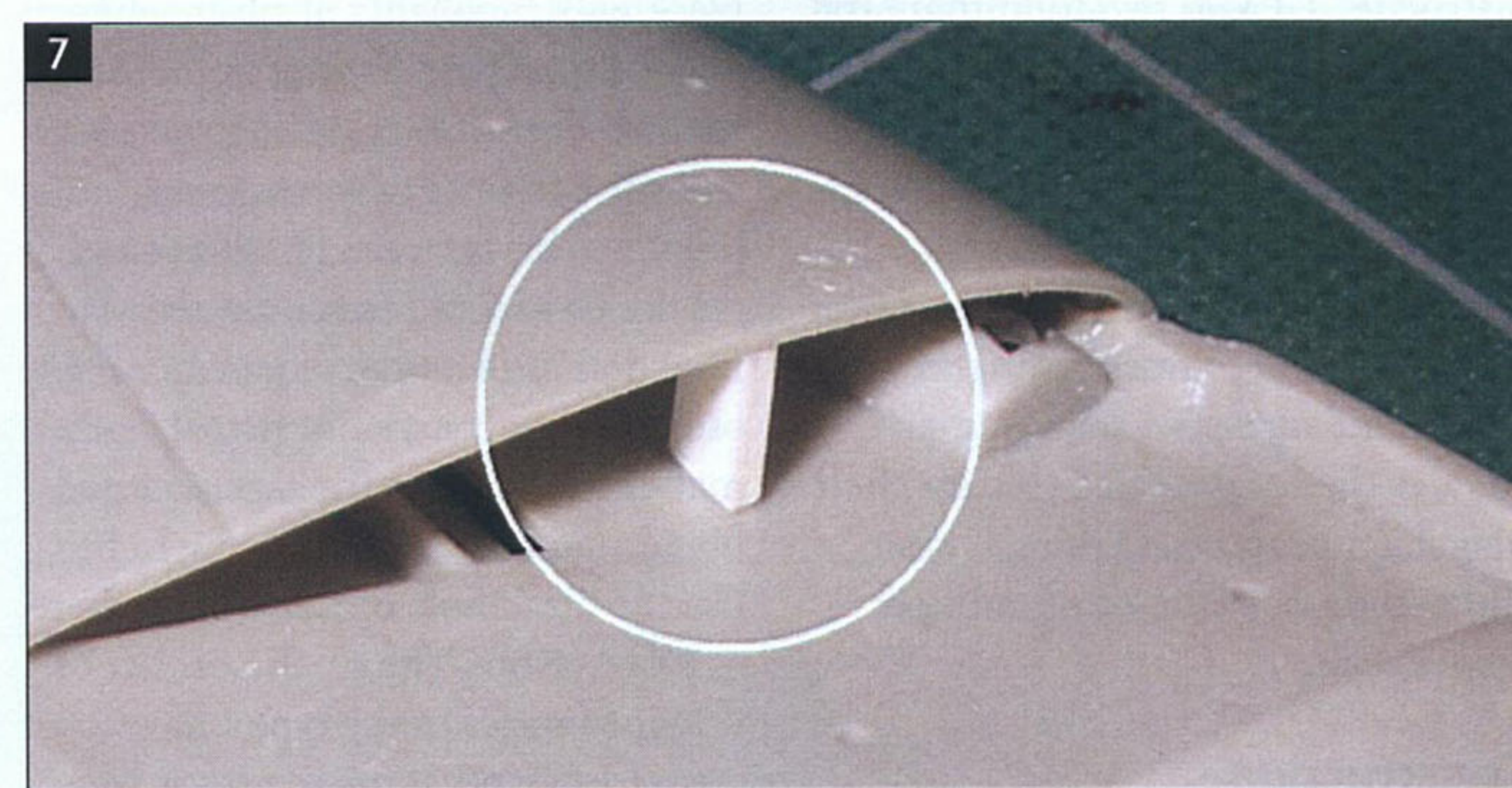
Filler required



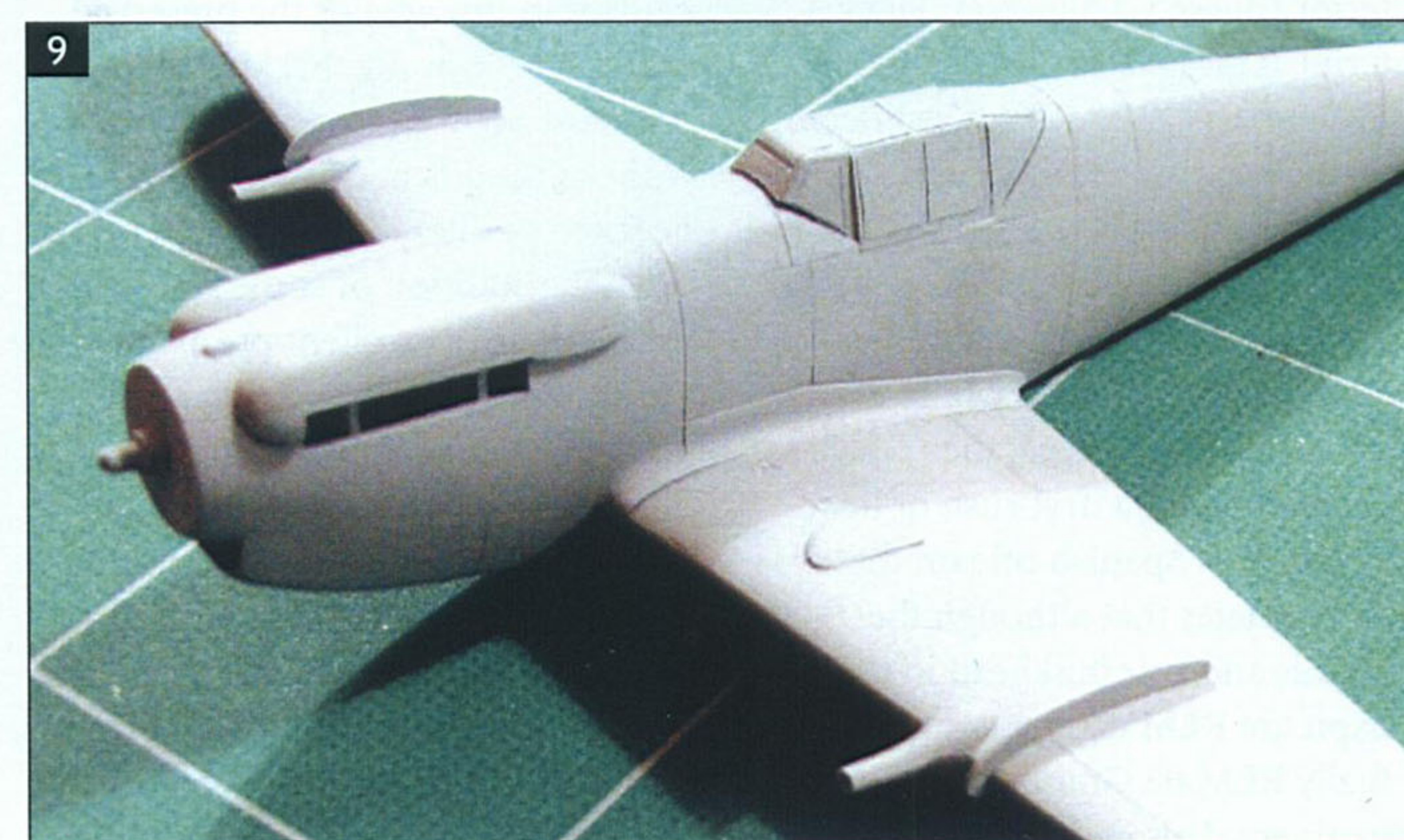
Taped wing, ready for glue and clamping



Marked out wheel well area



Spreader block



Primer grey



Colour Options

As with most Hobbycraft kits, there is a fair selection of colour options for this Spanish Pigeon. Two in overall gloss blue (RLM 24 is quoted) both from the late fifties. A silver and blue machine from 1965 and a camouflaged aircraft with the highly dubious date of 1985! A misprint, I hope?

The choice for this aircraft was the silver and blue machine, as depicted on the box-top artwork, this rather insipid variation being made more interesting by the black stripes along the fuselage for hiding the exhaust staining and the bold nature of the Spanish National markings.

Starting off with a good coat of Halfords grey acrylic primer (See Photo 9) I then embarked on something new. Never being entirely happy with the metallic finish of many paints and having recently parted with my hard earned cash for an airbrush, I decided to try the Alclad II metal lacquer. I used three types in an attempt to get a good variation in sheens/tones; Aluminium, Dark Aluminium and Duralumin. A couple of coats of the Aluminium were followed by careful masking (See Photo 10) and picking out various panels in the two remaining colours (See Photo

11). Two points have emerged from this, my first, foray into the Alclad world: 1. Preparation is everything! The surface of the primed model was not sufficiently smooth, meaning that I have got a 'bloom' on certain parts of the kit, spoiling the metallic effects and: 2. This stuff is so easy to use. It sprays beautifully, dries fast and can take being masked and over sprayed without complaint. I see no reason why, with a bit more practice, I shouldn't be able to produce some very realistic metal-looking effects.

Once the Alclad was completely dry I masked off the upper surface and blasted the undersides with two coats of Humbrol 47 because according to the instructions, this was supposed to represent the Sky Blue as used on Spanish aircraft of this period. To my (colour-blind) eye, it looks a little pale (See Photo 12) but once scuffed up with some grey and Burnt Sienna pastels it looks pretty good.

This was a simple paint job that took only a few hours to accomplish, ready for the decals (See Photo 13).

Decals

The decal sheet for this kit is excellent, not only containing the

markings for the four aircraft options on the instruction sheets, but also two whole sets of numerical decals to allow just about any Spanish Buchon to be modelled.

The decals themselves are thin, slightly glossy, with good register and colour density. There is the option of using a plain black cross on the tail

(and painting your own white background) or the complete marking as I used, although it is oversize and needed trimming. They react well to Microscale setting solution and adhere well to the contours, settling into the panel lines nicely.

There is also a full stencil set on the sheet and even though it is

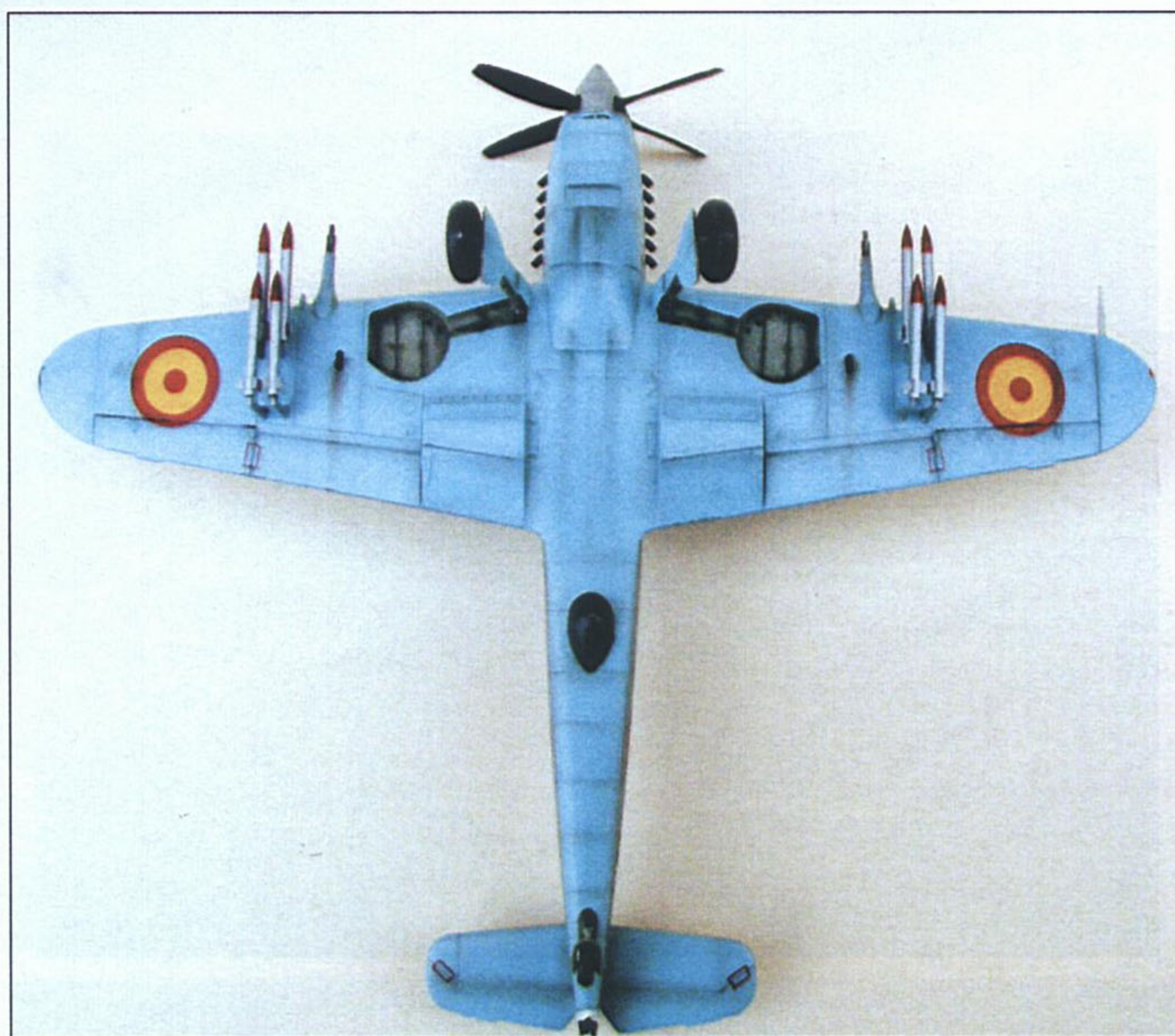


photo album

Hispano Buchon

All photographs ©Jim Grant

This selection of photographs were taken at the Royal Spanish Air Force Museum and depict the Hispano-Suiza HS12Z89 powered HA.1109 K1L and Merlin powered HA.1112 M1L versions of the Buchon.



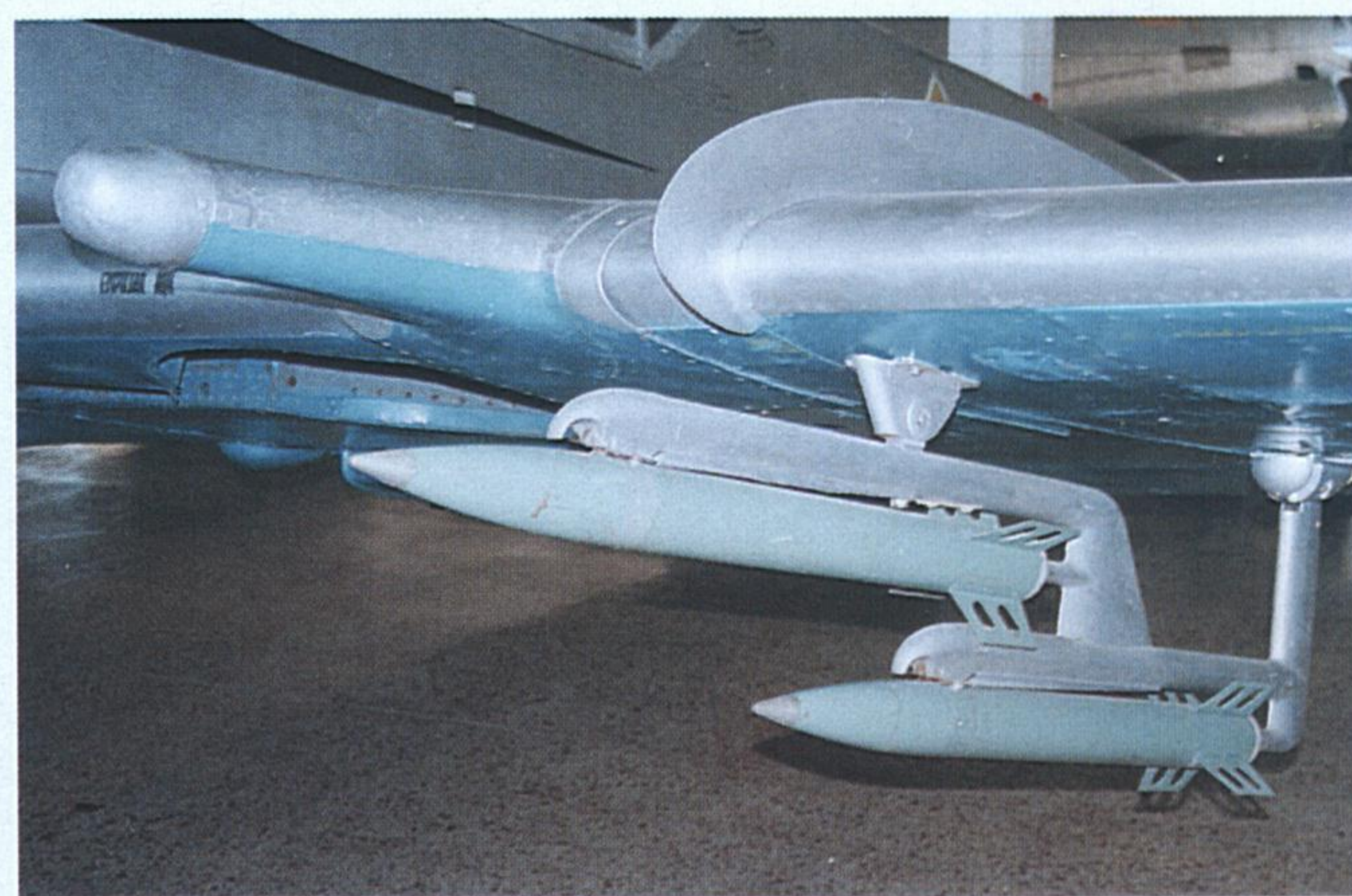
HA.1112 M1L cockpit canopy



Centre fuselage section with unit codes and national insignia



C4K-58 an HA.1109 K1L unit code 94-28 with cannon barrel streamlining and rocket launcher



Hispano HA.1112 M1L wing fence, rockets and launchers and cannon barrel streamlining



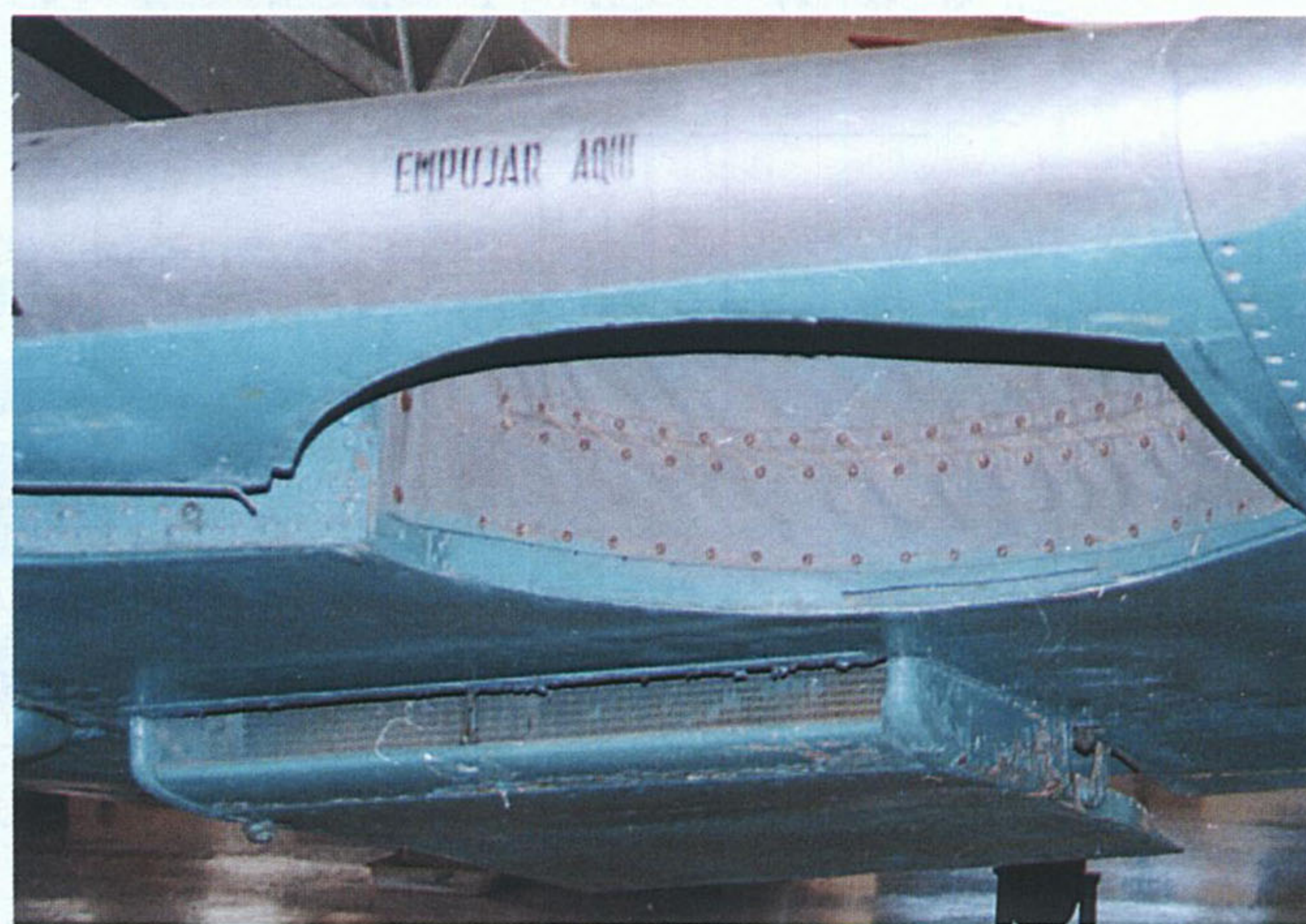
C4-J10 HA.1109 K1L rear fuselage, tail assembly, tail wheel, unit codes and national insignia



The underside of the Hispano HA.1109 K1L



The undercarriage and air intakes of the HA.1109 KIL



Wheel well and radiator of the HA.1112 MIL



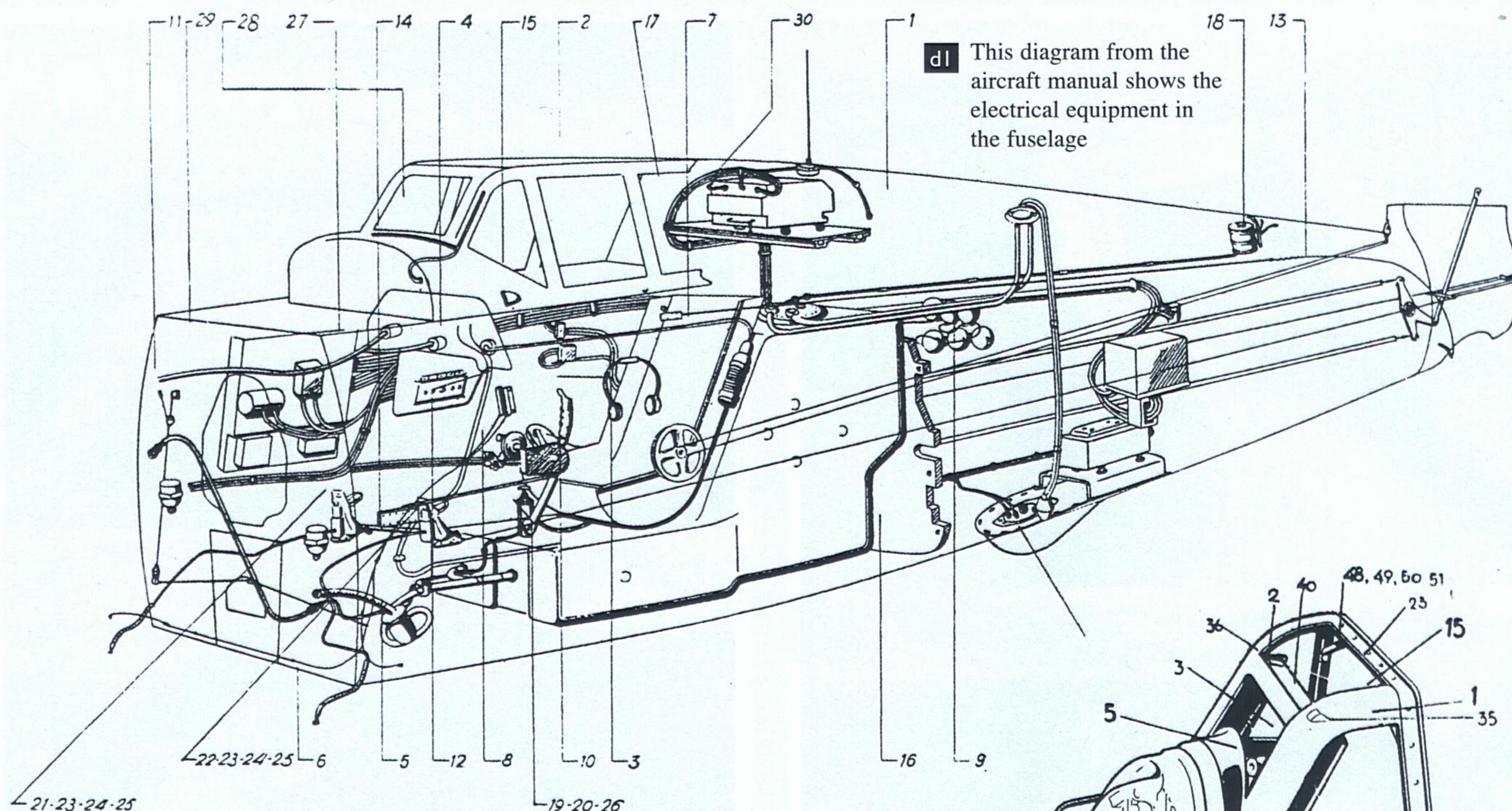
Nose section of the HA.1109 KIL with its Hispano Suiza 12Z-17



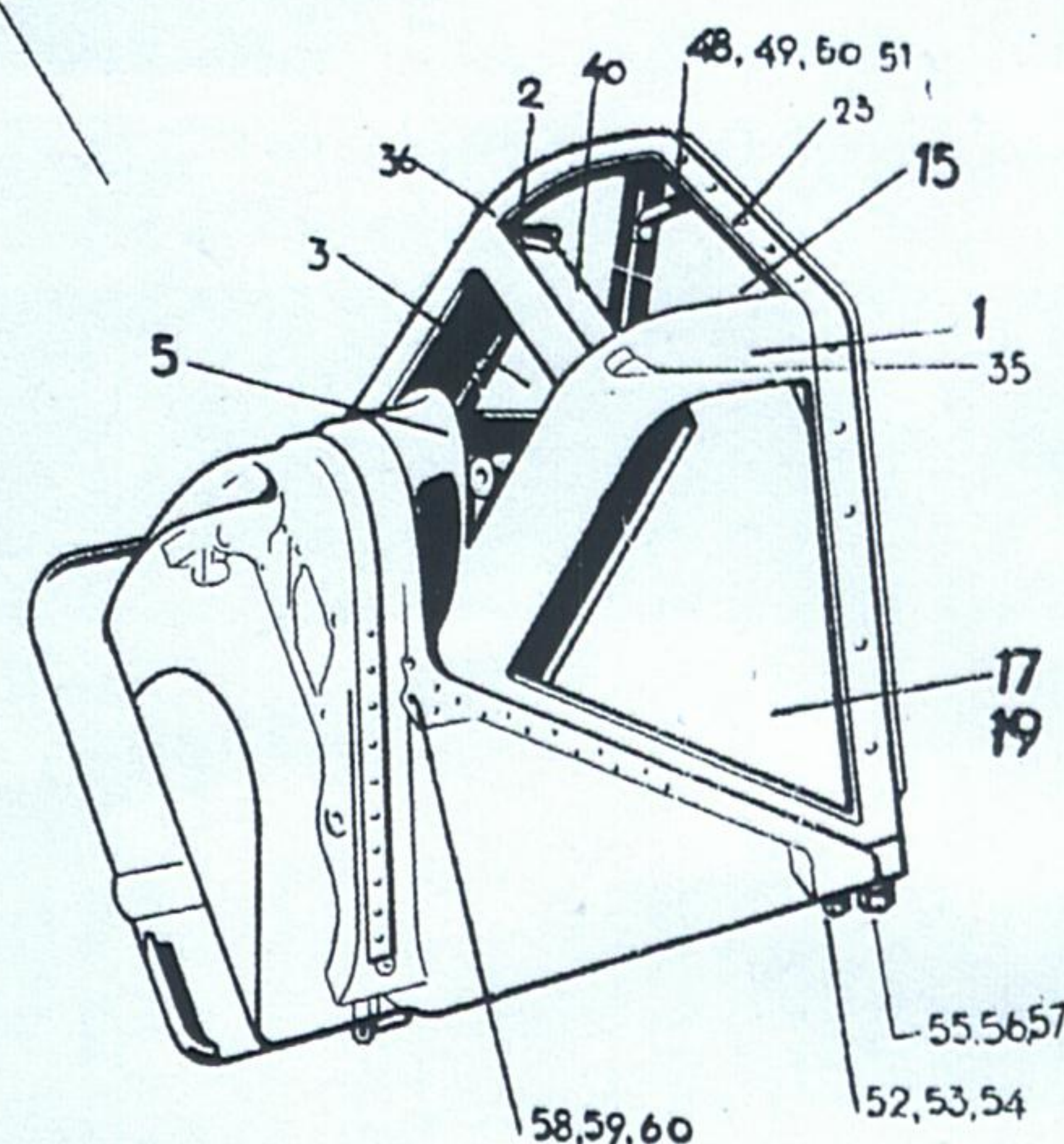
Undercarriage of the HA.1112 MIL



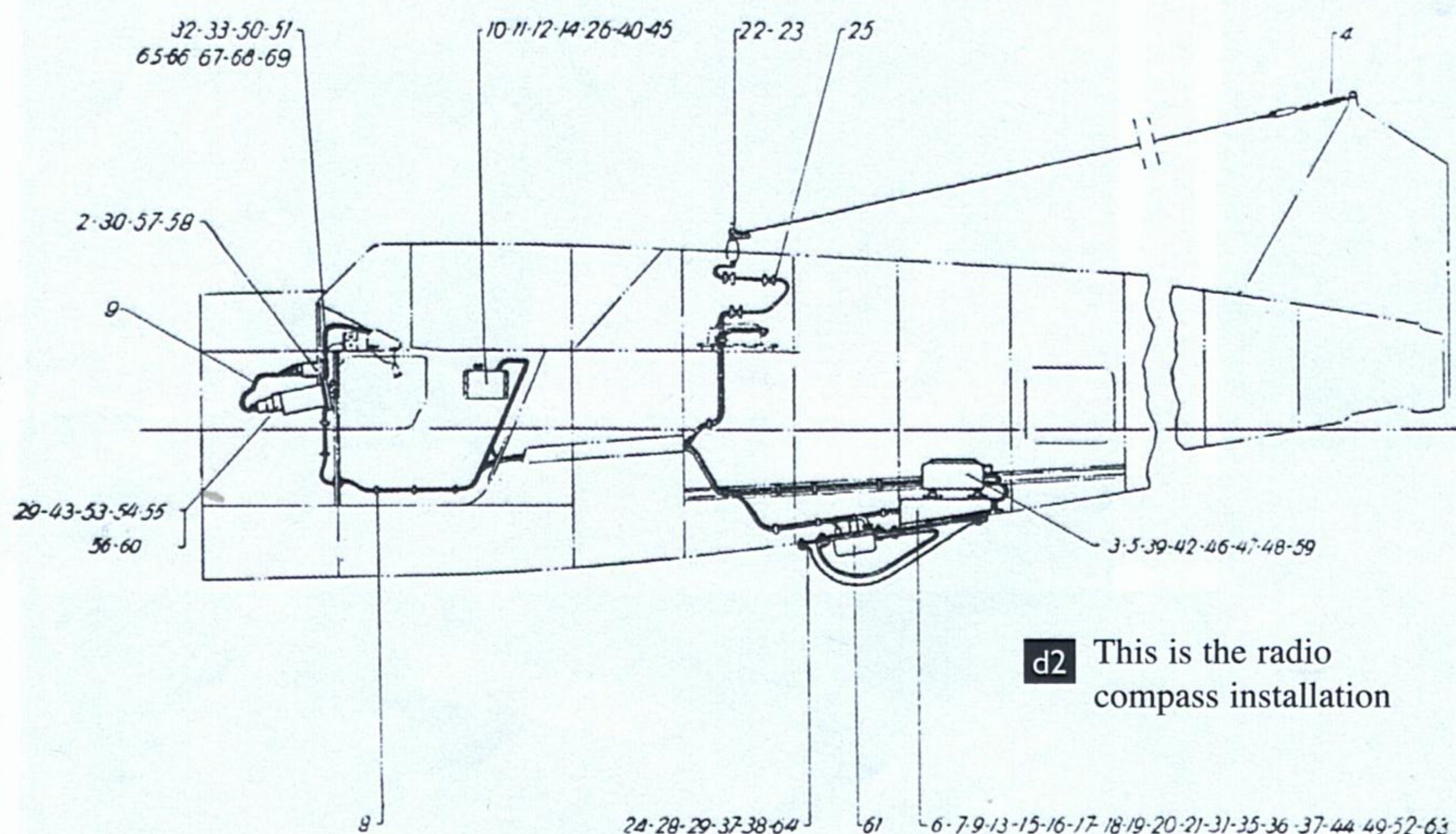
Nose section of C4K-158 with the cowling of the 1,400hp Rolls-Royce Merlin 500/45



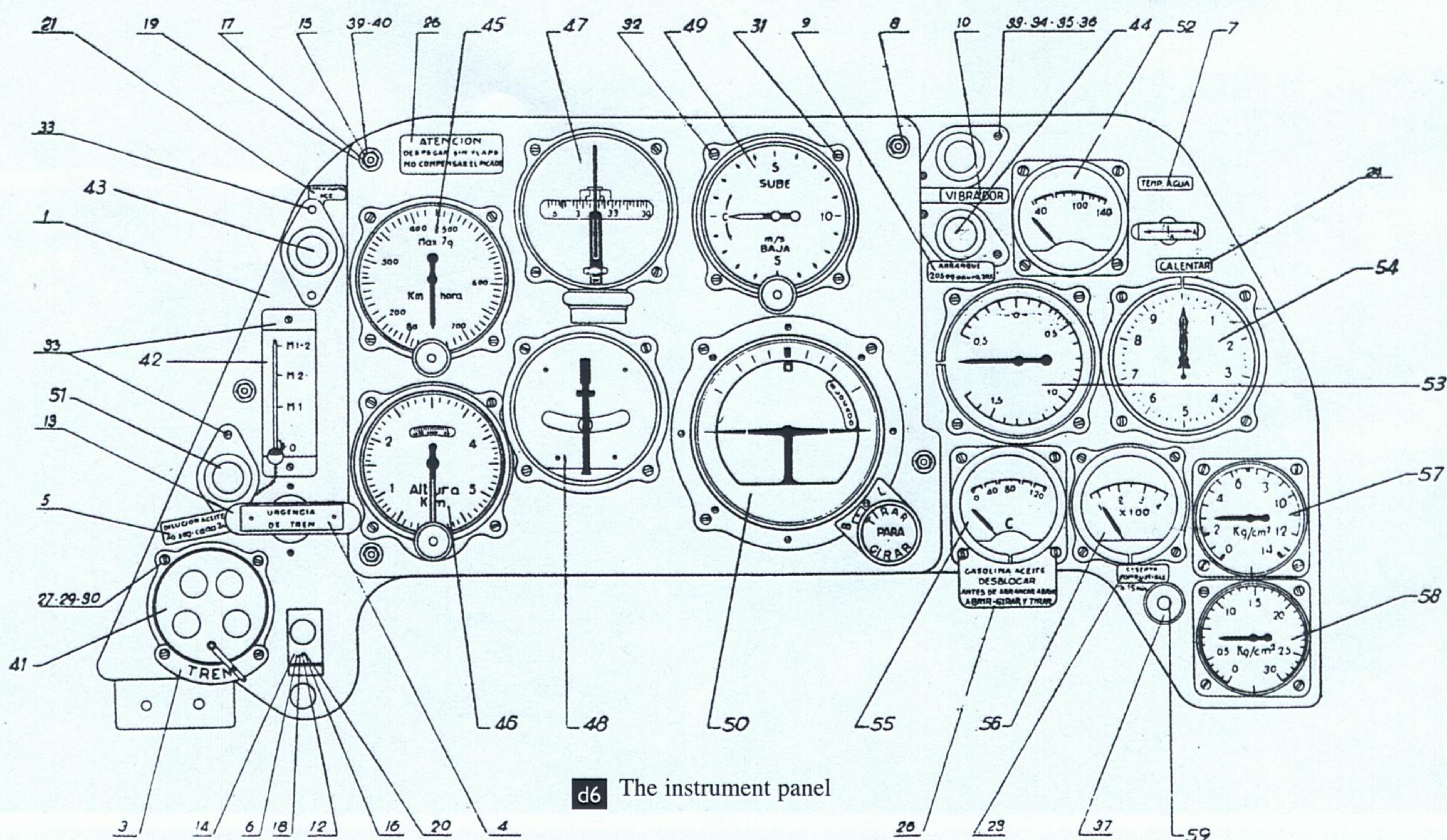
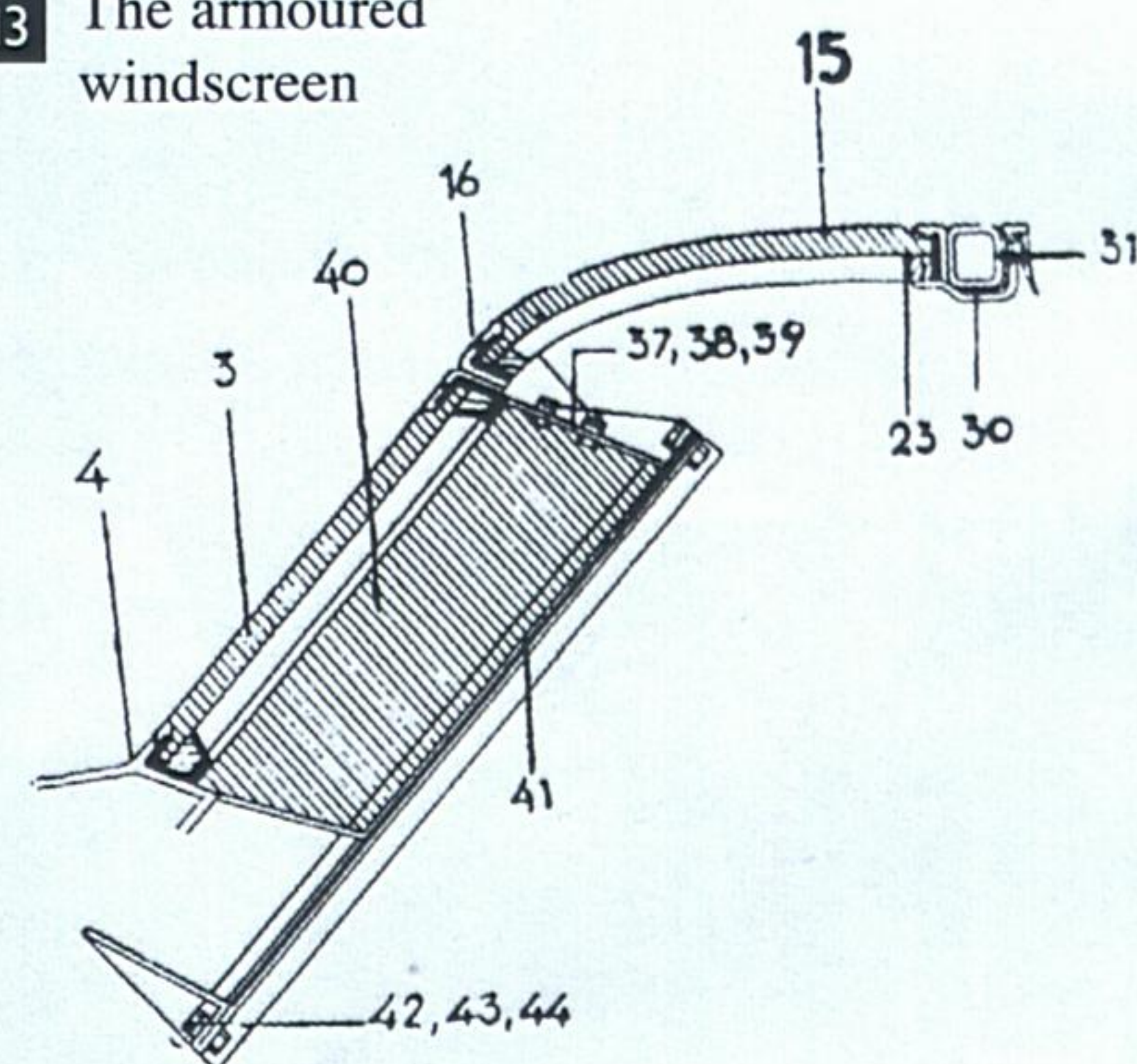
d1 This diagram from the aircraft manual shows the electrical equipment in the fuselage



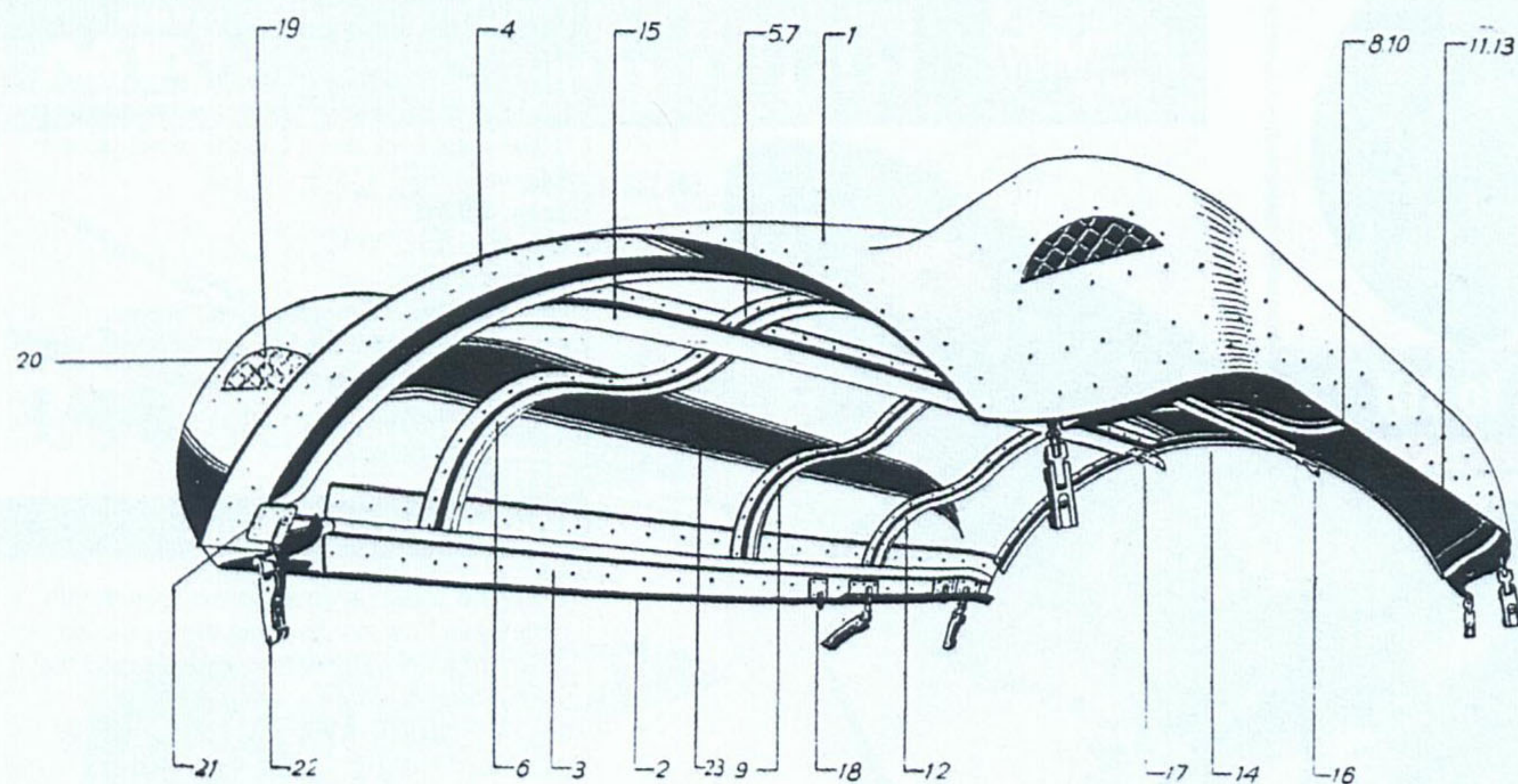
d3 The armoured windscreen



d2 This is the radio compass installation

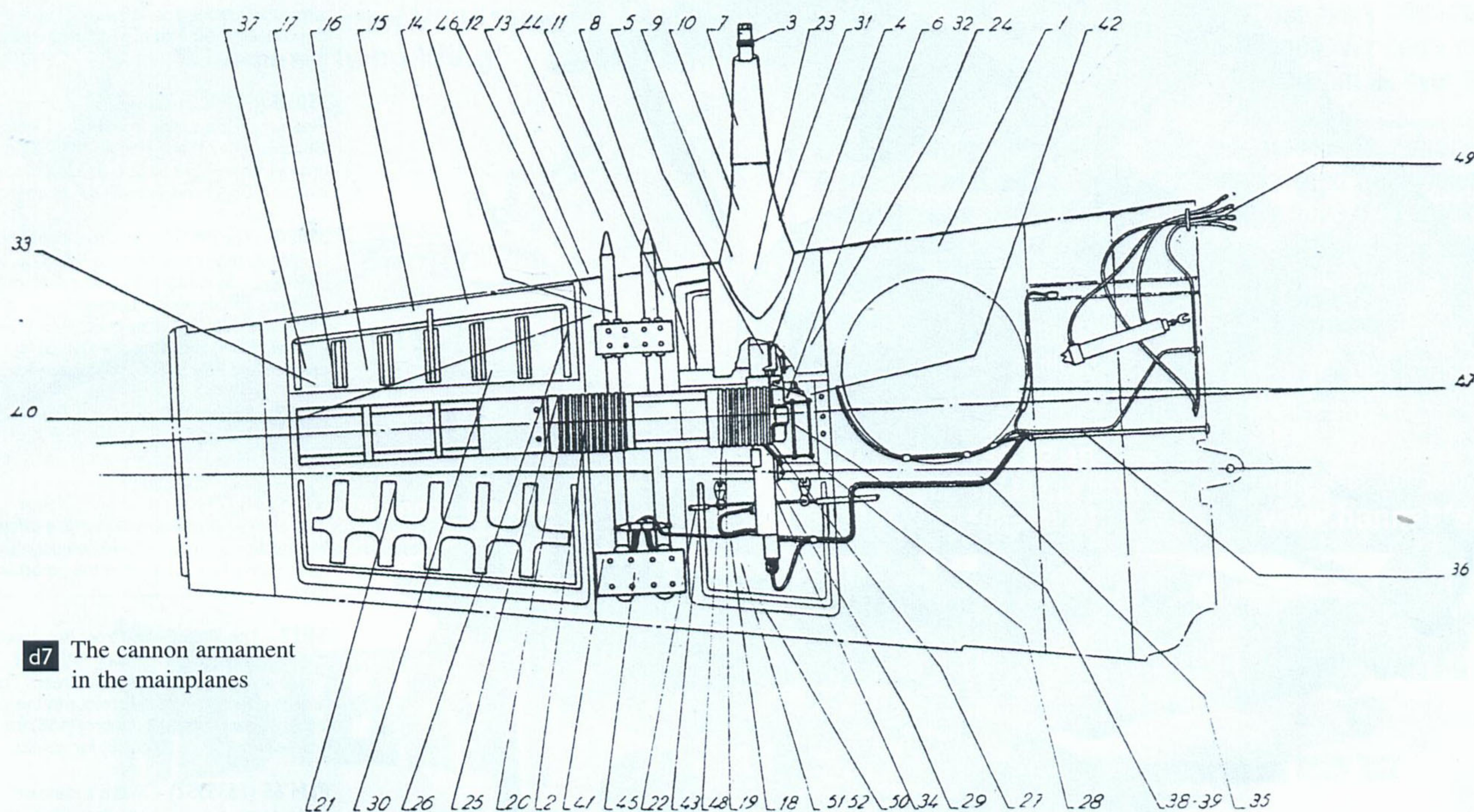
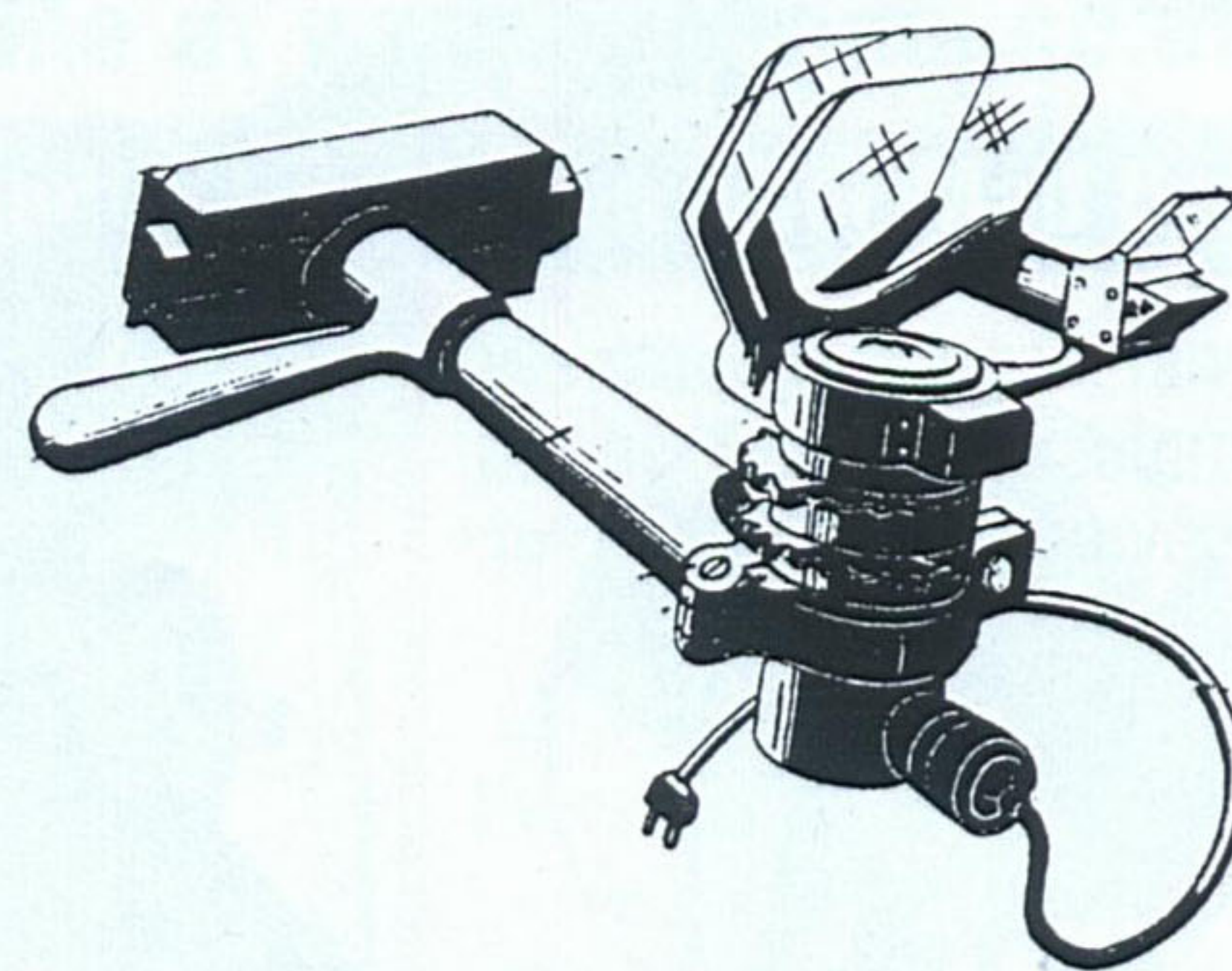


d6 The instrument panel

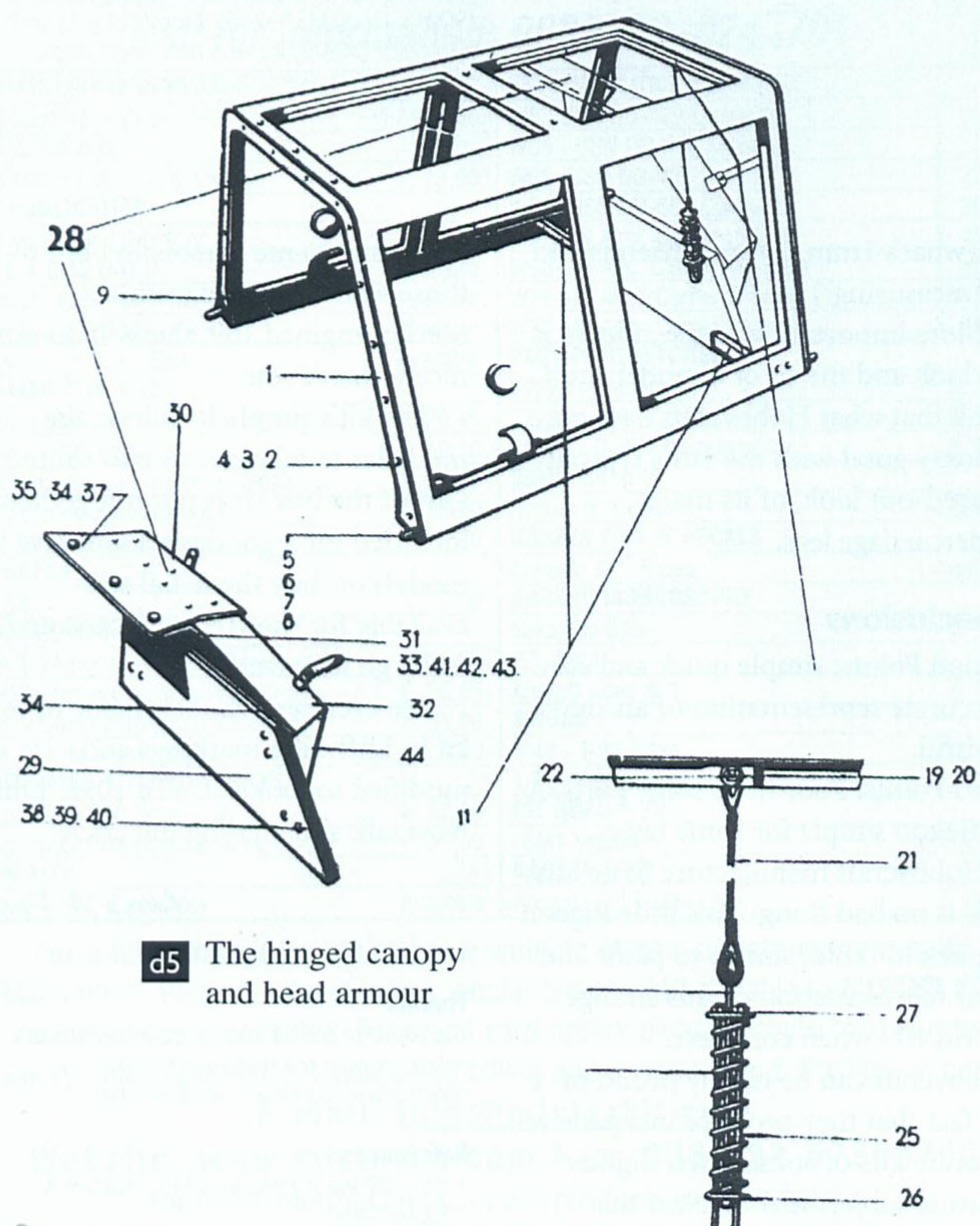


d8 The upper cowl

d4 The gunsight

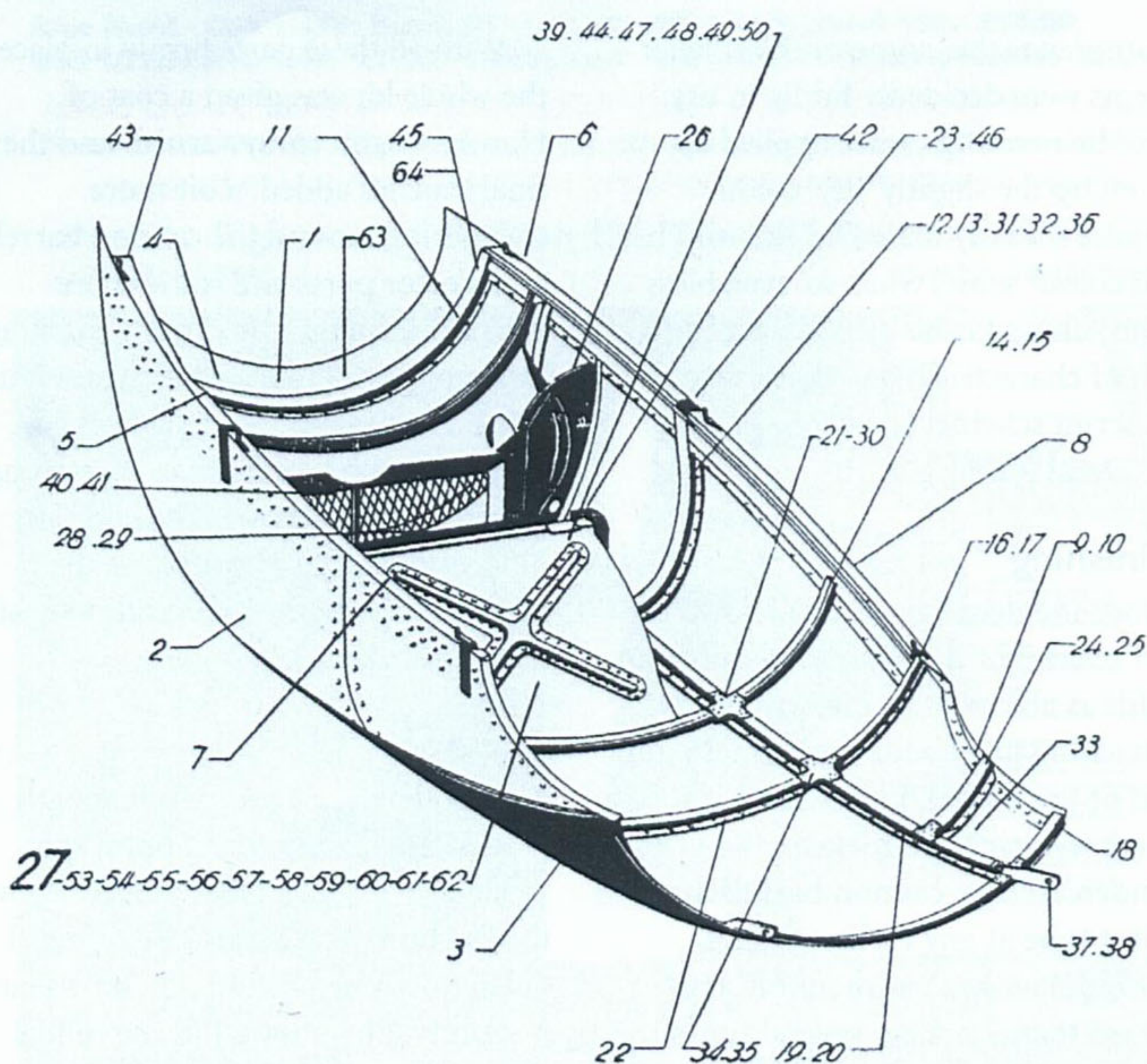


d7 The cannon armament in the mainplanes



d5 The hinged canopy and head armour

d9 The lower engine cowl with radiator intake





comprehensive, some of the smaller items were decidedly fiddly in use.

The markings, once applied do liven up the slightly 'iffy' colour choice that my mate Dai (he who has no colour sense, what-so-ever, bless him) chose for his aircraft, adding a bit of character to an otherwise none-descript scheme.

Decal Rating = 9/10.

Finishing

Once the decals had been allowed to set overnight it was time to finish up. This as always with me, involves attaching just about every 'sticky-out' bit of the model. I know that if I were to attach the rockets, undercarriage, cannon barrels and pitot tube at any earlier stage, I would have broken them off and glued them back on several times by now. Doing it all right at the end means less time for me to cause any damage.

With all these parts firmly in place the whole kit was given a coat of Humbrol satin spray varnish and the final touches added: a bit more weathering around the cannon barrels and ejector ports and some more exhaust staining. The canopy masking was removed (always a touch stressful this bit but the Johnsons Klear had done its usual excellent job of keeping the clear bits fog-free). The addition of a couple of aerial wires was the final touch, and then it was time to sit back and take stock.

Accuracy

The model measures 193mm length (scaled up 9.26m) and 206mm span (scaled up 9.88m). Does anyone know the Buchon's real length? I'm afraid I failed miserably to find out, only that it is slightly longer than the late model G that it is based on [See Footnote - Ed]. Its span is 9.85m (scaled down to 206mm) which shows the span is spot

on (what's 1mm between friends and my measuring?)

More importantly to me at least, is the look and the sit of a model and I think that what Hobbycraft have got is pretty good with the 109's typically splayed-out look, of its main undercarriage legs.

Conclusions

- Good Points: simple quick and easy. Accurate representation of an 'odd' hybrid.
- Bad Points: Poor fit of some parts. A little too simple for some tastes.

Hobbycraft manufacture basic kits. This is no bad thing. This little Pigeon is quick to build, simple to paint and a fair representation of this strange hybrid 109 when complete. Hobbycraft can be rightly proud of the fact that they produce inexpensive accurate kits of sometimes, slightly unusual subject matter. Now this Buchon will not appeal to everyone

Footnote 1 – Dimensions

There have been few books covering the Buchon, but there was one produced in Spain a few years back and it lists the dimensions as follows.

Span: 9.92m

Length: 9.1m

Height: 2.6m

Going by these dimensions and Steve's measurements the Hobbycraft kit is too long in the fuselage and too short in span.

Footnote 2 – Colours

Using the previously mentioned Spanish title once again I can confirm that the type used three main colour schemes in its life, and they are as follows.

- 1. Overall dark blue (FS 35050)
- 2. Aluminium (FS 36628) over blue (FS 35550)
- 3. Two shades of green (FS 30257 & 34127) over a blue/grey equivalent to RLM 65 (FS 35352)

Using the Testors cross-reference guide we can convert these into the following available paint ranges.

35050 – This is a matt version of Blue Angels Blue, which is available from Humbrol (190), Xtracolor (X123) and Floquil (303053) in enamel, and Gunze Sangyo (H328), Model Master (50172) and Tamiya (X3) as acrylics

35550 – The IPMS Color Cross-Reference Guide lists this colour as being Pale Blue, as used on La-5s during WWII. The Testors guide does not include an FS number for Russian Underside Blue, but does quote AeroMaster Enamel (9074) and Xtracolor (X115) for enamels and Poly S (500207) for acrylics

30257 – The IPMS Color Cross-Reference Guide lists this colour as being Light Earth, which was used with Dark Green in RAF biplane lower wing topside shadow-shading and in early (1940/1) desert camouflage. There are no commercially available paints of this colour, so I suspect it will be necessary to lighten Dark Earth to achieve this particular shade.

34127 – The IPMS Color Cross-Reference Guide lists this colour as being RAF Light Green and US (current) Forest Green. The Testors guide converts this colour to the following paint ranges. Humbrol (150) for enamels and Poly S (505238) for acrylics.

RLM 65 (FS35352) – This is a standard WWII Luftwaffe colour and converts to the following paint ranges. AeroMaster [enamel] (9021), Floquil (303245), Humbrol (65) and Xtracolor (X202) for enamels, and Gunze Sangyo (H67), AeroMaster [acrylic] (1021) and Poly S (505051) for acrylics.

(it doesn't to me personally) but to those who want a Spanish, Merlin-engined 109, this will do quite nicely, thank you.

The kit's simplicity allows the modeller to take one of two routes: Out of the box (just put it together as intended for a good representative model) or: buy the detail sets available for the 109 and you could really go to town.

I've even seen models made of this kit in Luftwaffe markings and modified to look like a Bf 109E 'Emil'. Now talk about going full circle!

Steve A. Evans

Thanks

Dai Willis for the kit and his patience (I took a holiday right in the middle of this kit's construction, so he was kept waiting)

References:

- Me 109 Vol II 1942 to 1945, Histoire & Collections.
- World Encyclopedia of Military Aircraft, Jane's



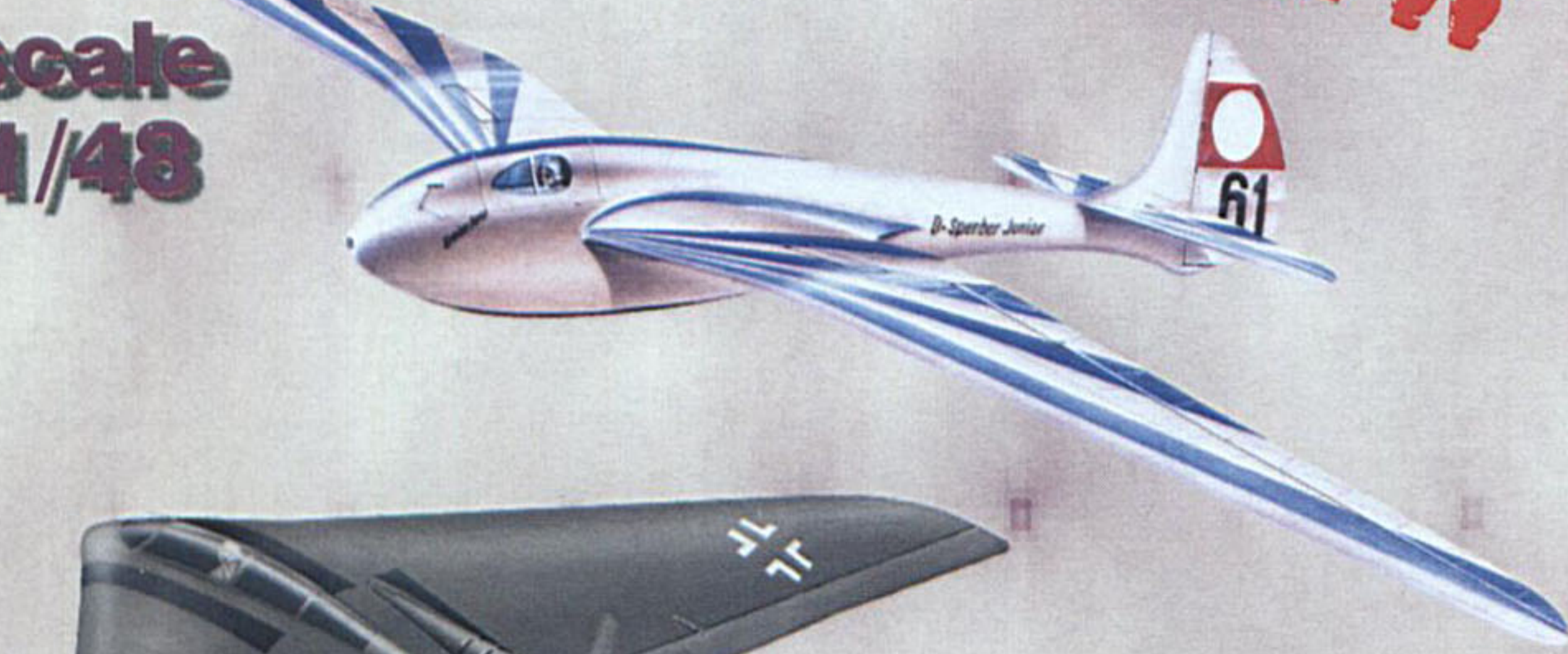
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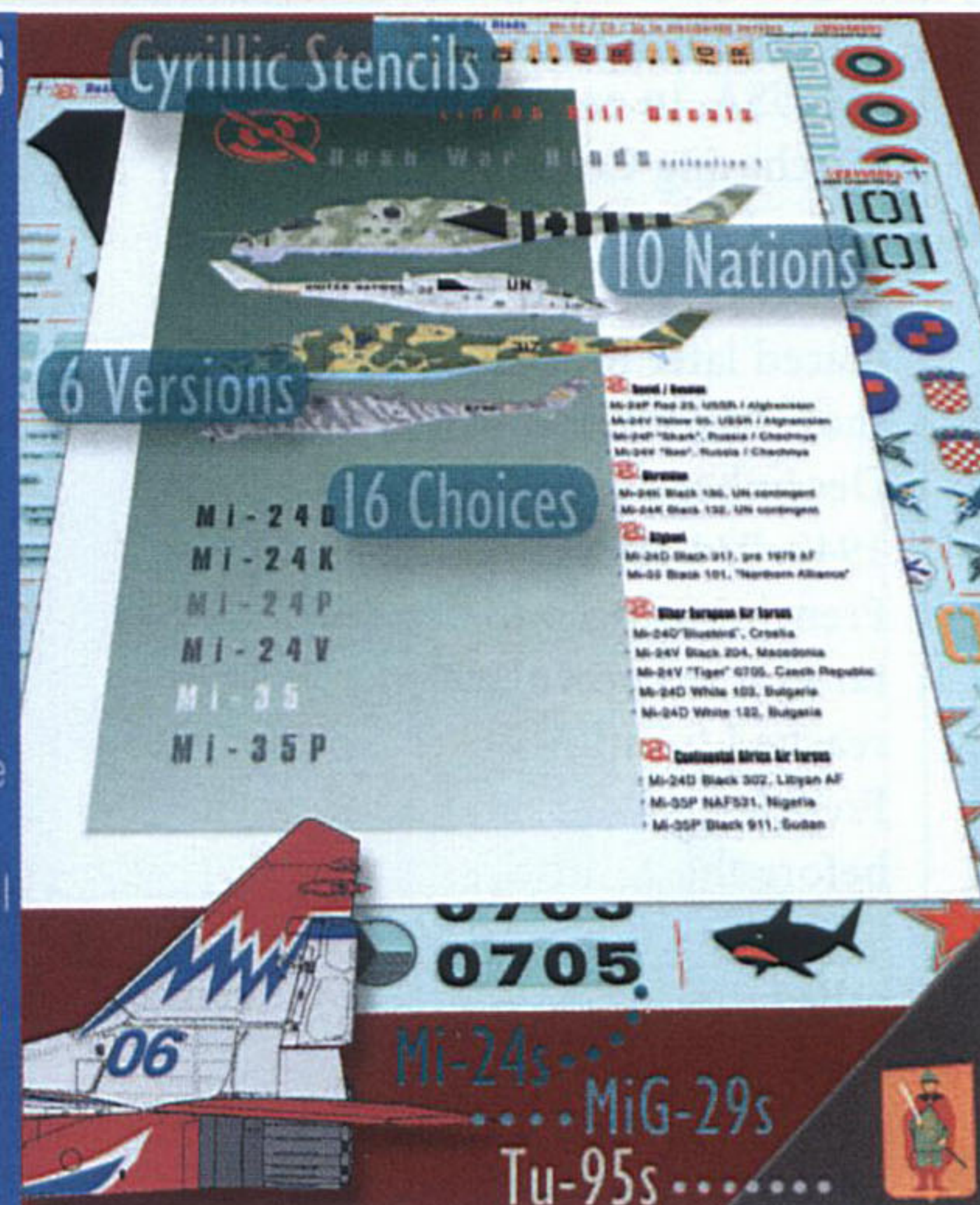
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Decal Options: 2

Manufacturer: Azur

UK Importer: Hannants

At the time of the Munich Crisis the French Government was in a hurry to expand the Air Force. As the French aircraft industry could not supply the required number of aircraft in time, they decided to go abroad, mainly to the USA. In early 1939, the French Purchasing Commission placed an order for 115 Martin 167F (for France). Two new orders were placed later for 100 and 130 more of these Martin bombers. From December 25th 1939 to June 25th 1940, 234 aircraft were delivered to French Morocco to be assembled. As far as it is known 191 Martin 167F reached frontline service in the French Air Force and Aéronavale before the Armistice.

In France the Martin bomber was called the 167 A3 which signified that it was a strategic reconnaissance aircraft (A) with a crew of three (3), in reality however they served more

often as not as bombers.

On May 10th 1940, 78 of these aircraft were distributed between six Groupe de Bombardement - GB (Bombing Squadron), only two of which were actually in France. Four squadrons were to fight from May to June 1940, 25 bombers were lost and 30 crew were killed in action. The Naval bombers were not thrown into the battle. After the Armistice, the Vichy Air Force and Aéronavale kept five squadrons and five naval flights. These units fought against the Free French and Commonwealth forces in Africa and the Middle East.

Most of the aircraft of the third order were diverted to Great Britain due to the Armistice and thence mainly to the Desert Air Force where they were much needed. Some of them were dispatched to the Free French Flights and fought well with General Leclerc's forces.

Finally the French used the Martin 167F against the last German strongholds on the Atlantic shore in 1944/45.

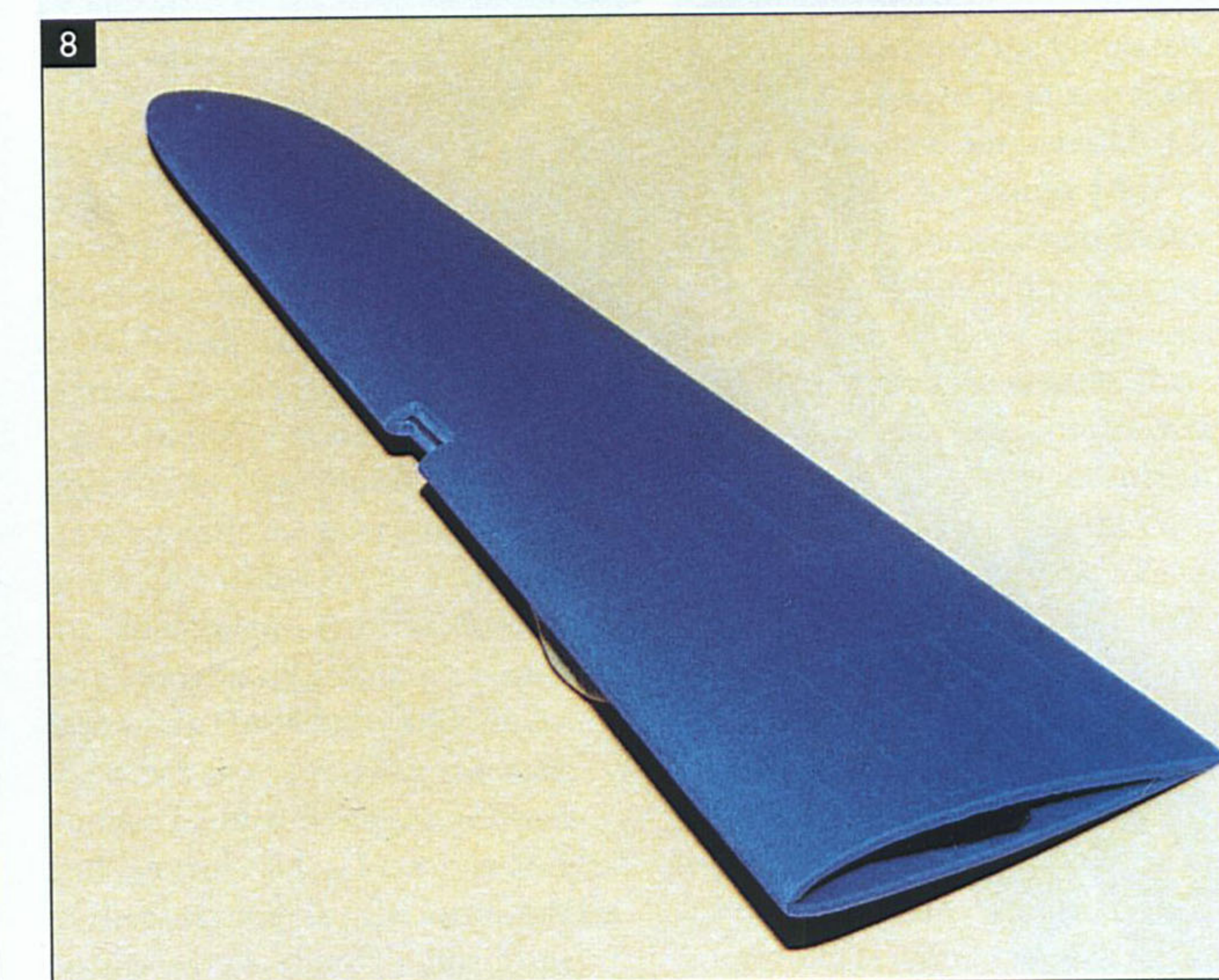
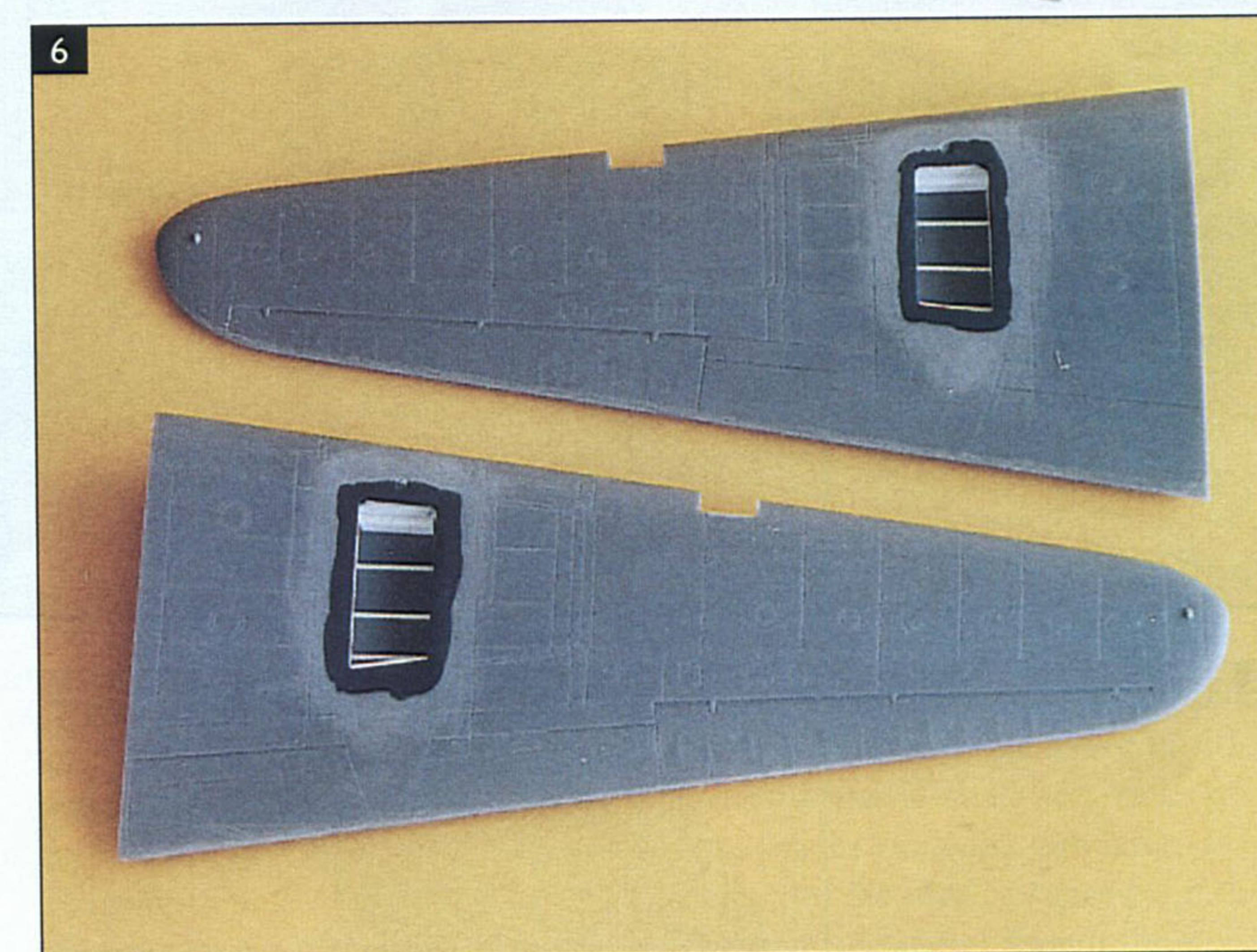
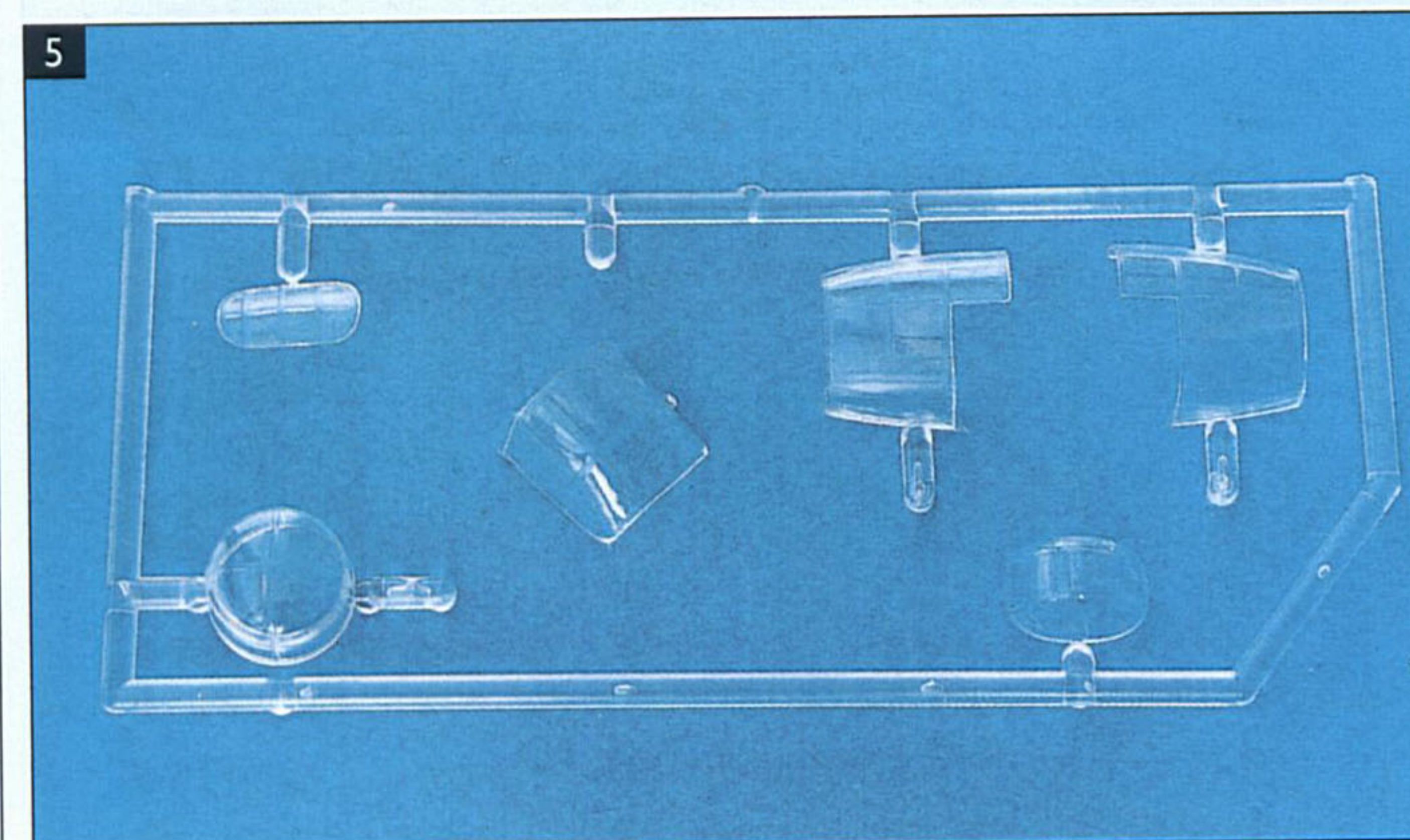
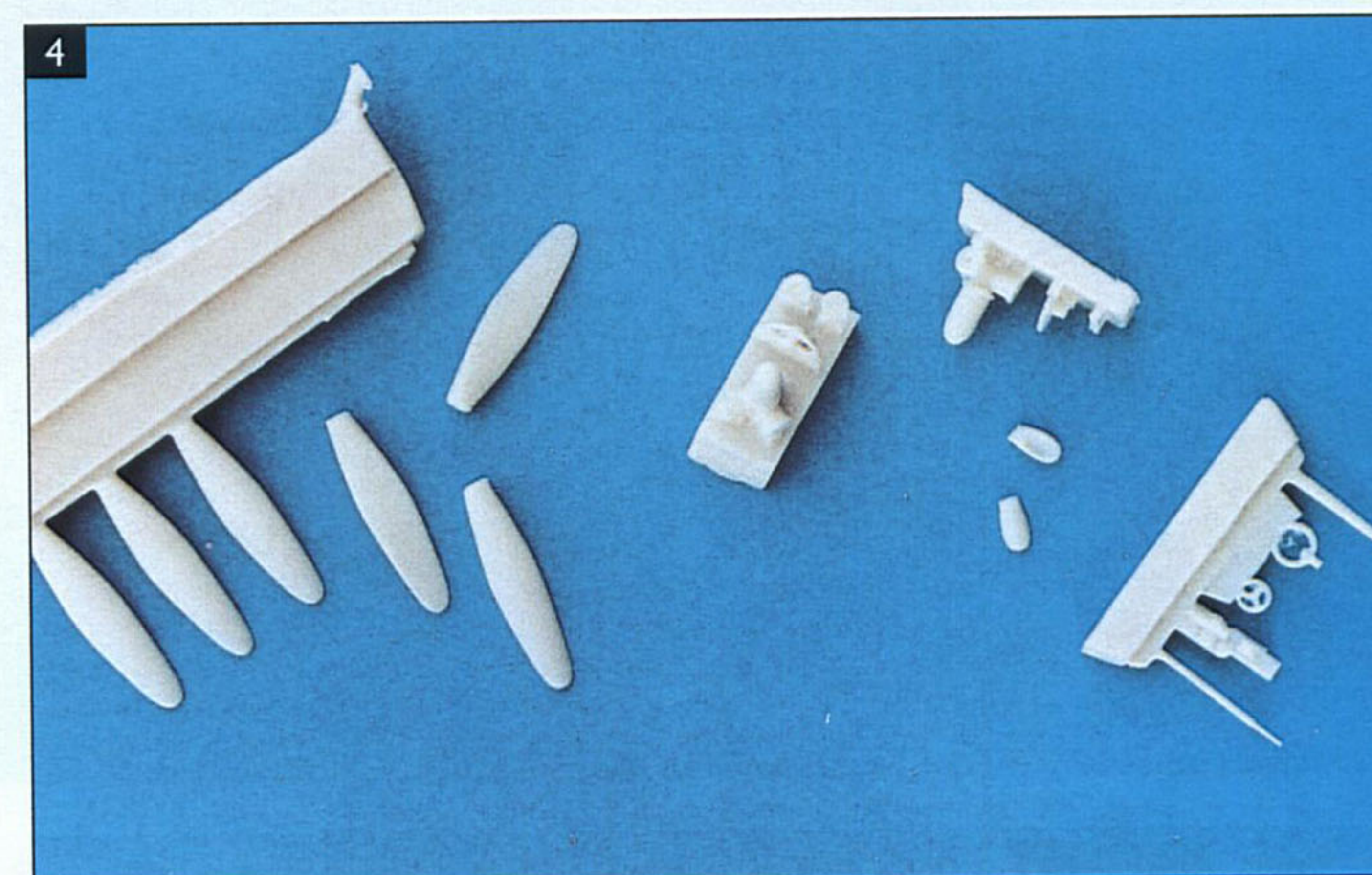
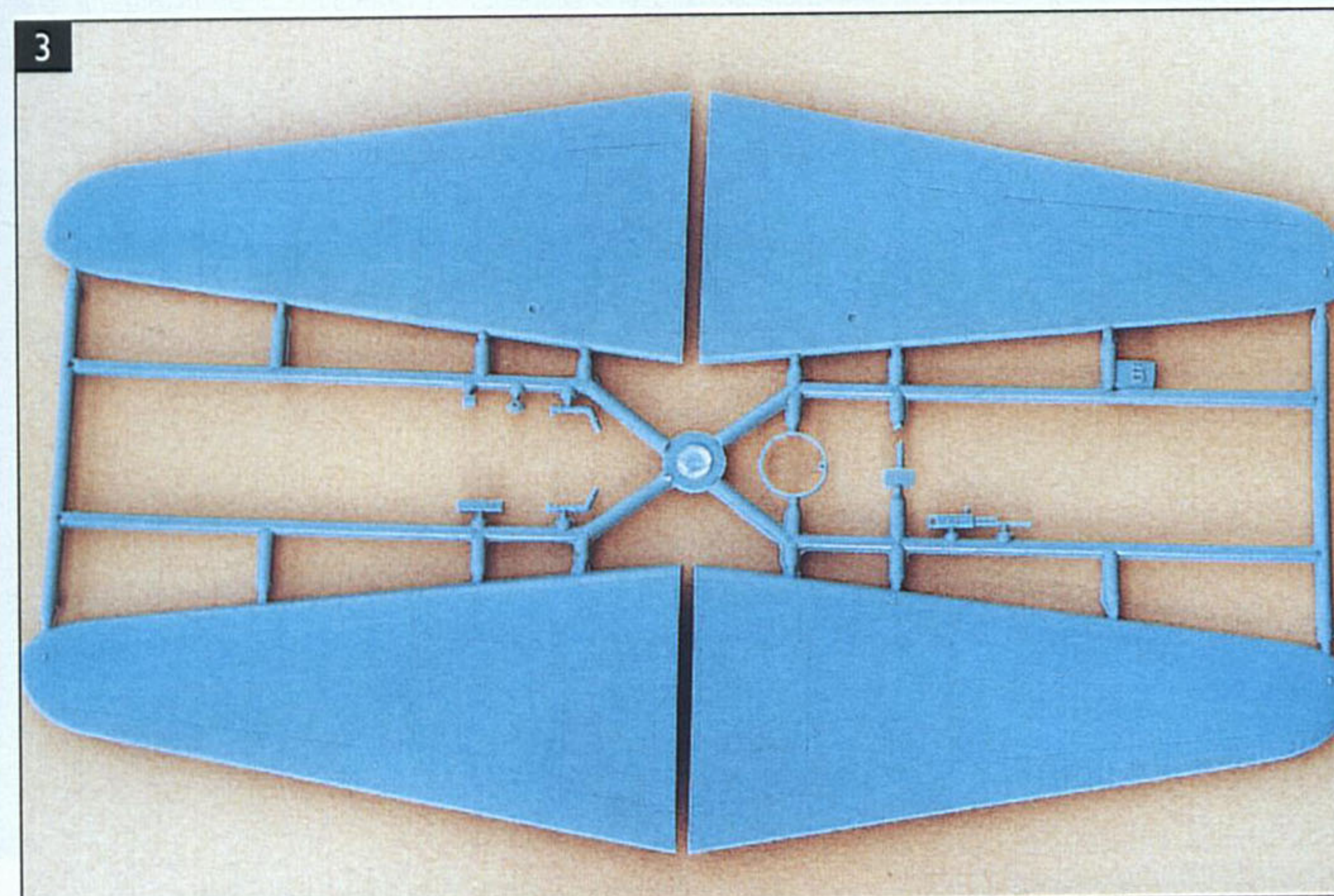
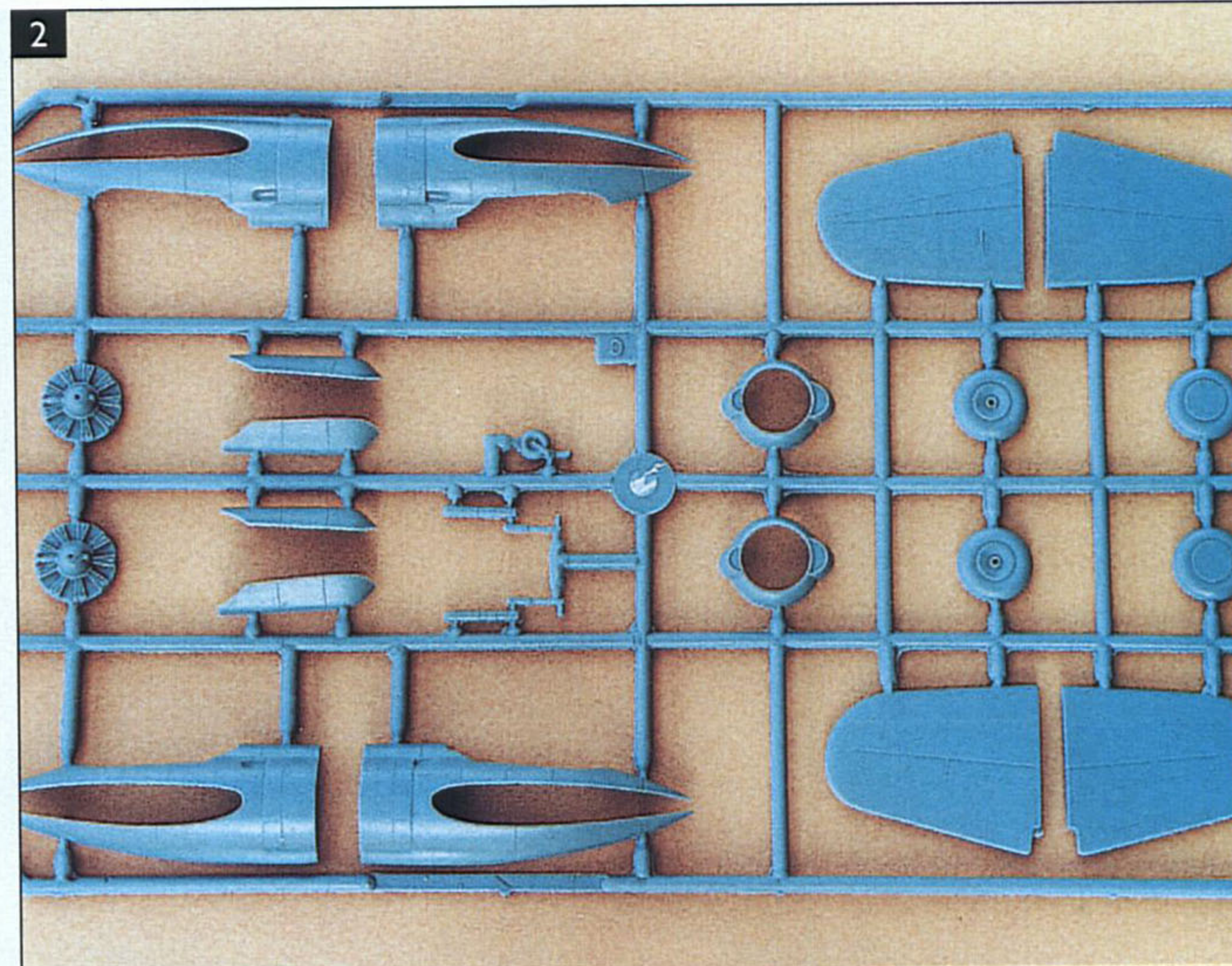
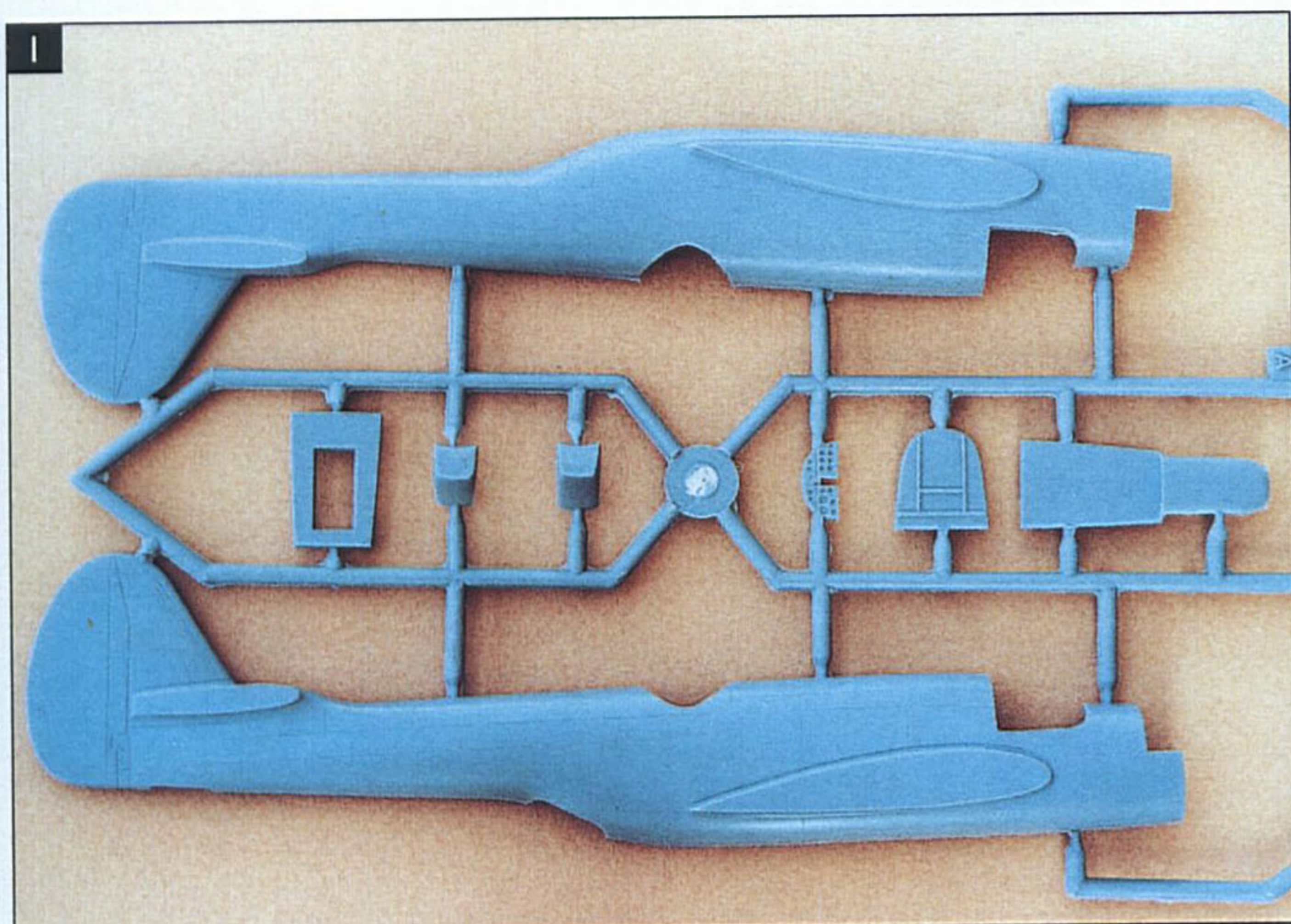
The Martin 167F was a low wing bomber with a crew of three, powered by two 1,065hp Pratt & Whitney Twin Wasp SC3-G engines. She had a wing span of 18.69m (61ft 4in) and a length of 14.22m (46ft 8in). The maximum speed was 489km/h (304 mph) at an altitude of 3,560m (11,680 ft). The maximum take-off weight was 7,560kg (16,689lb) and the typical range with a 800kg (1,766lb) bomb load was of 1,500km (932 miles).

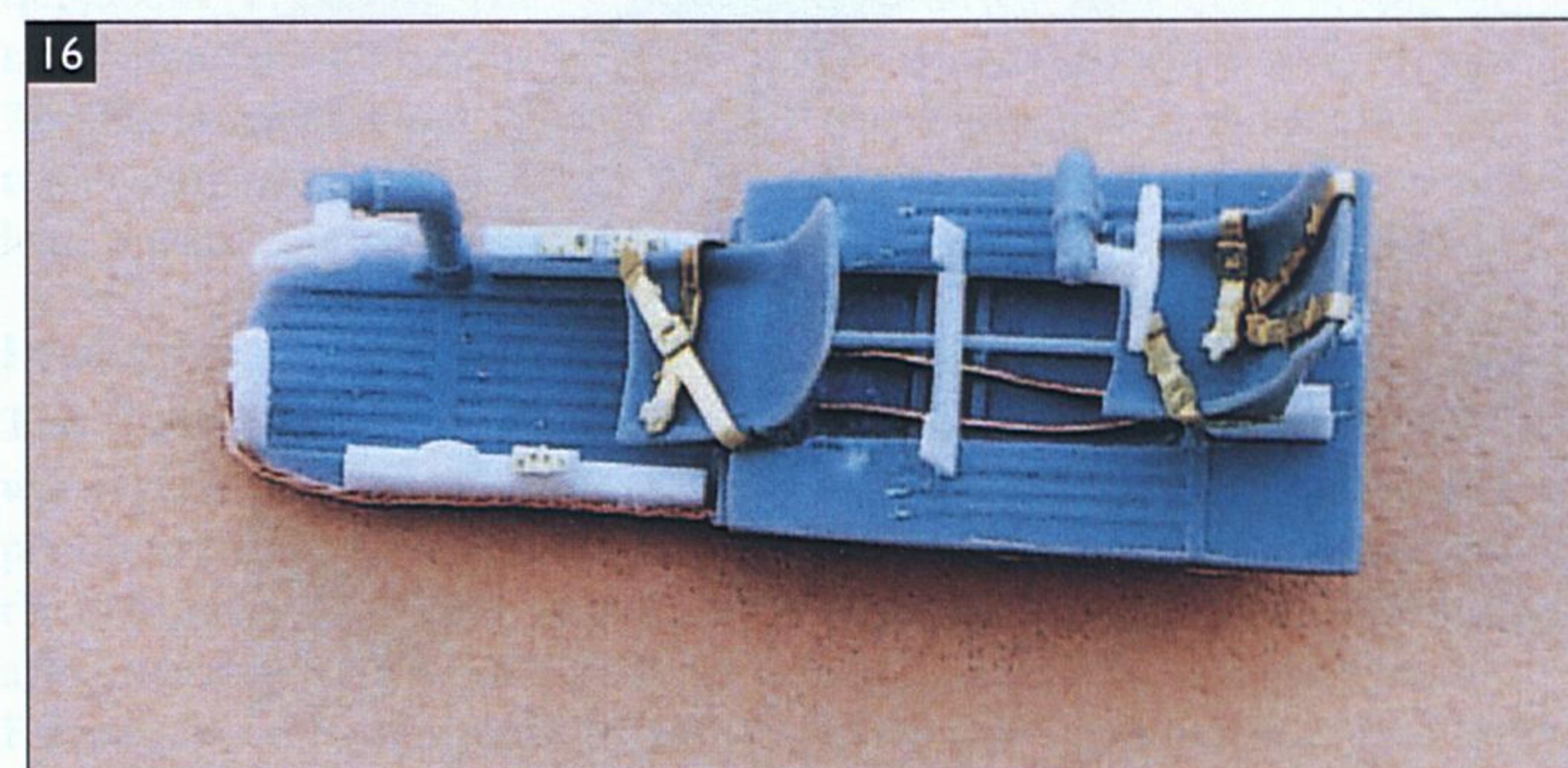
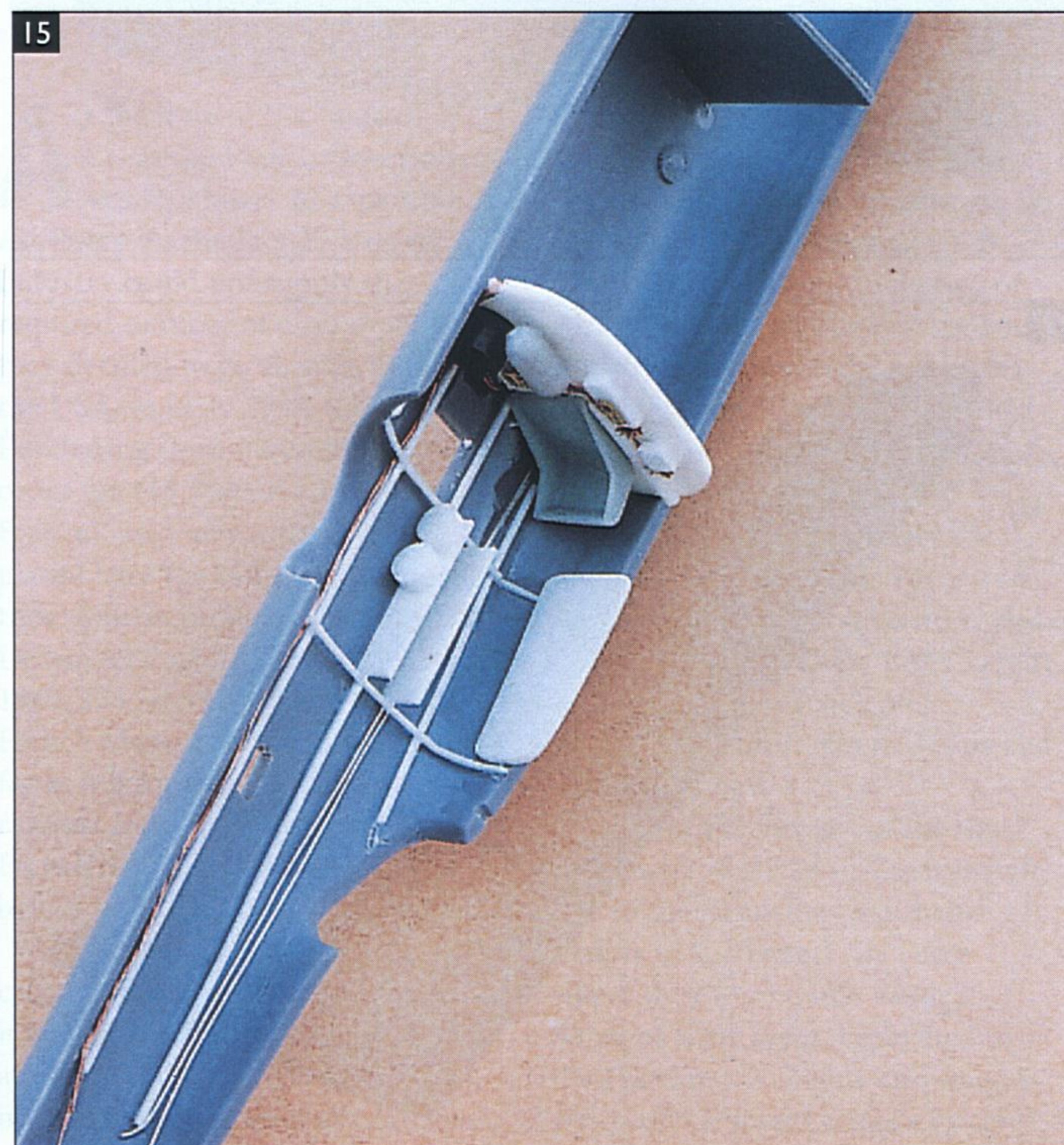
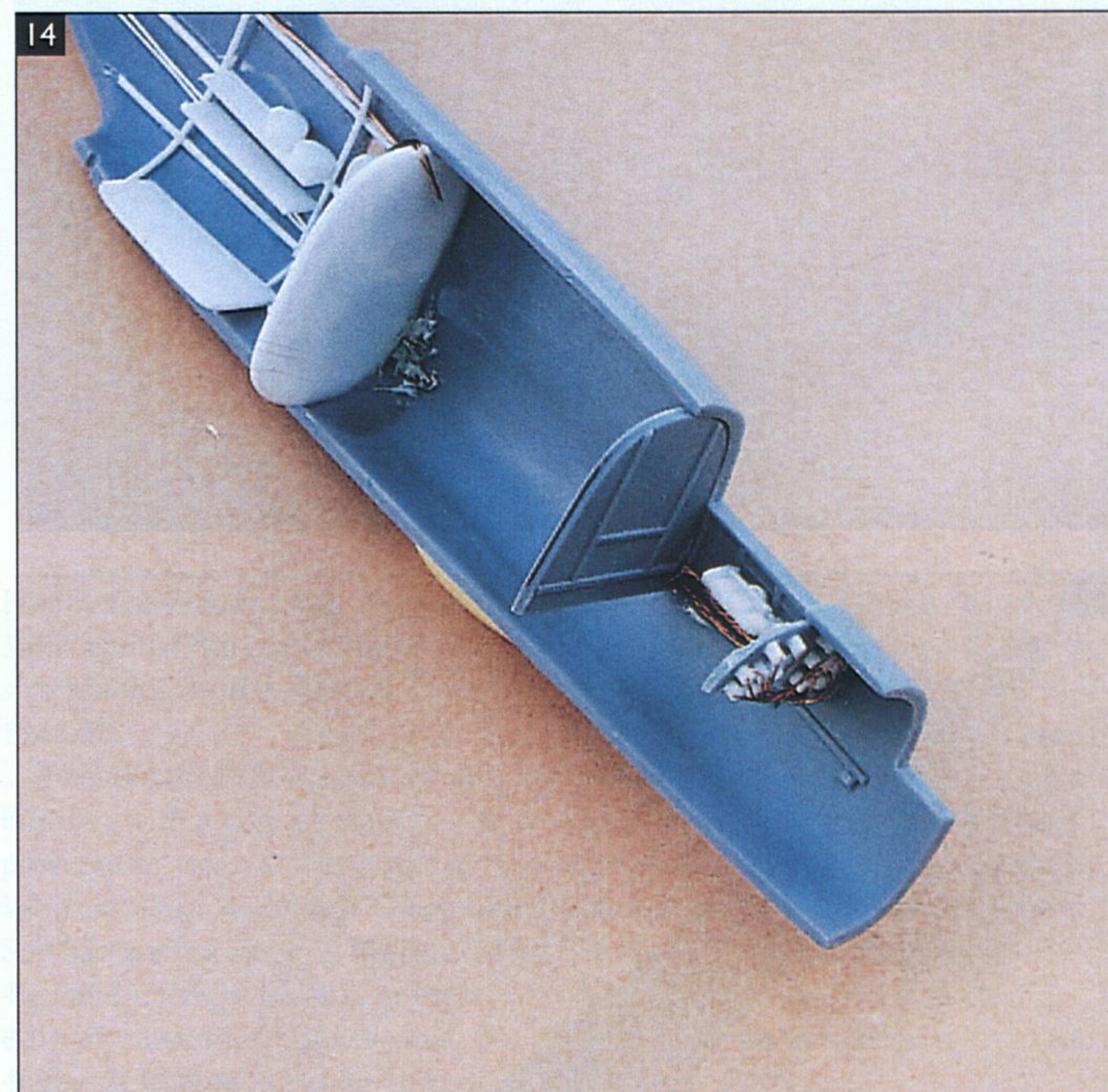
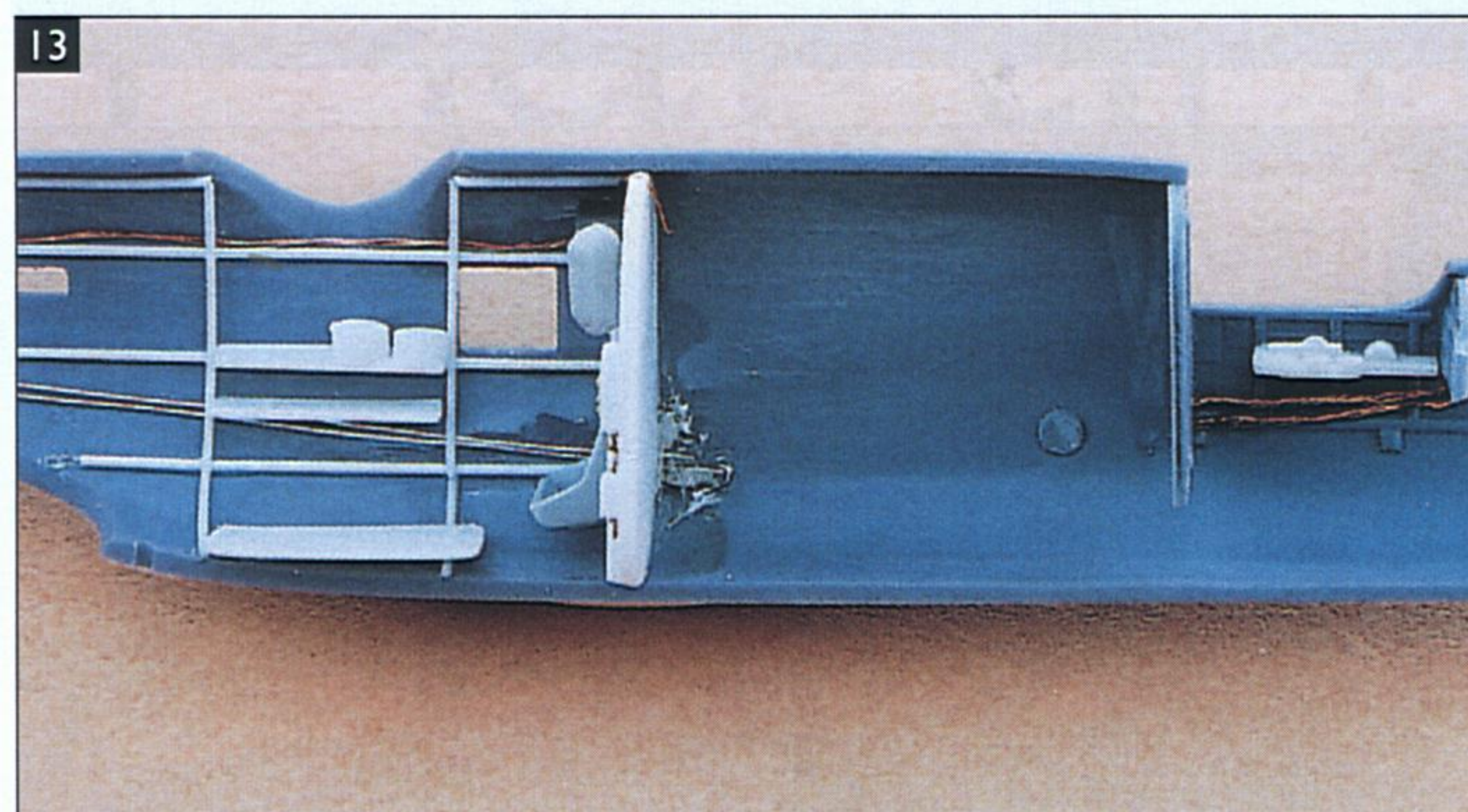
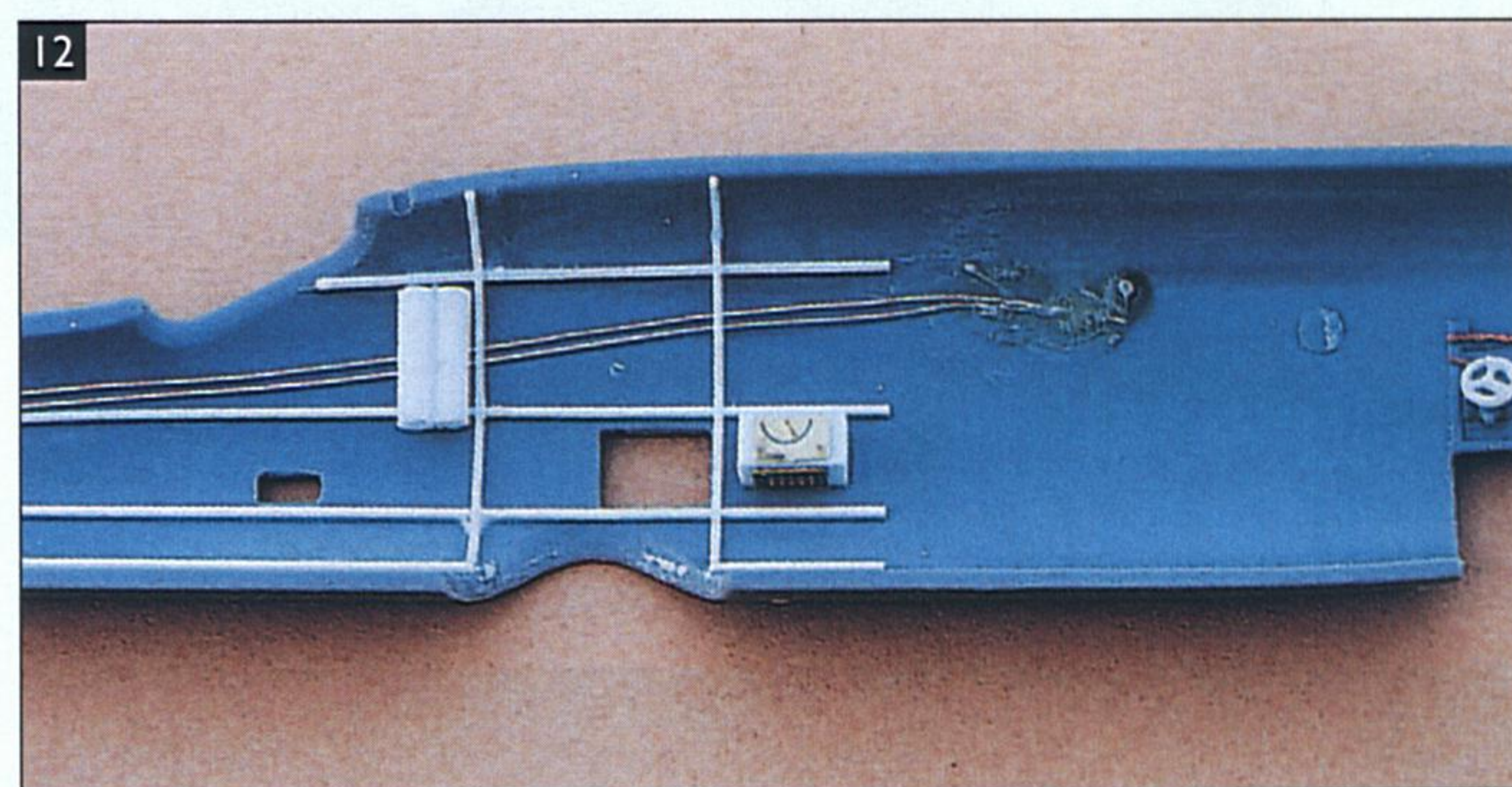
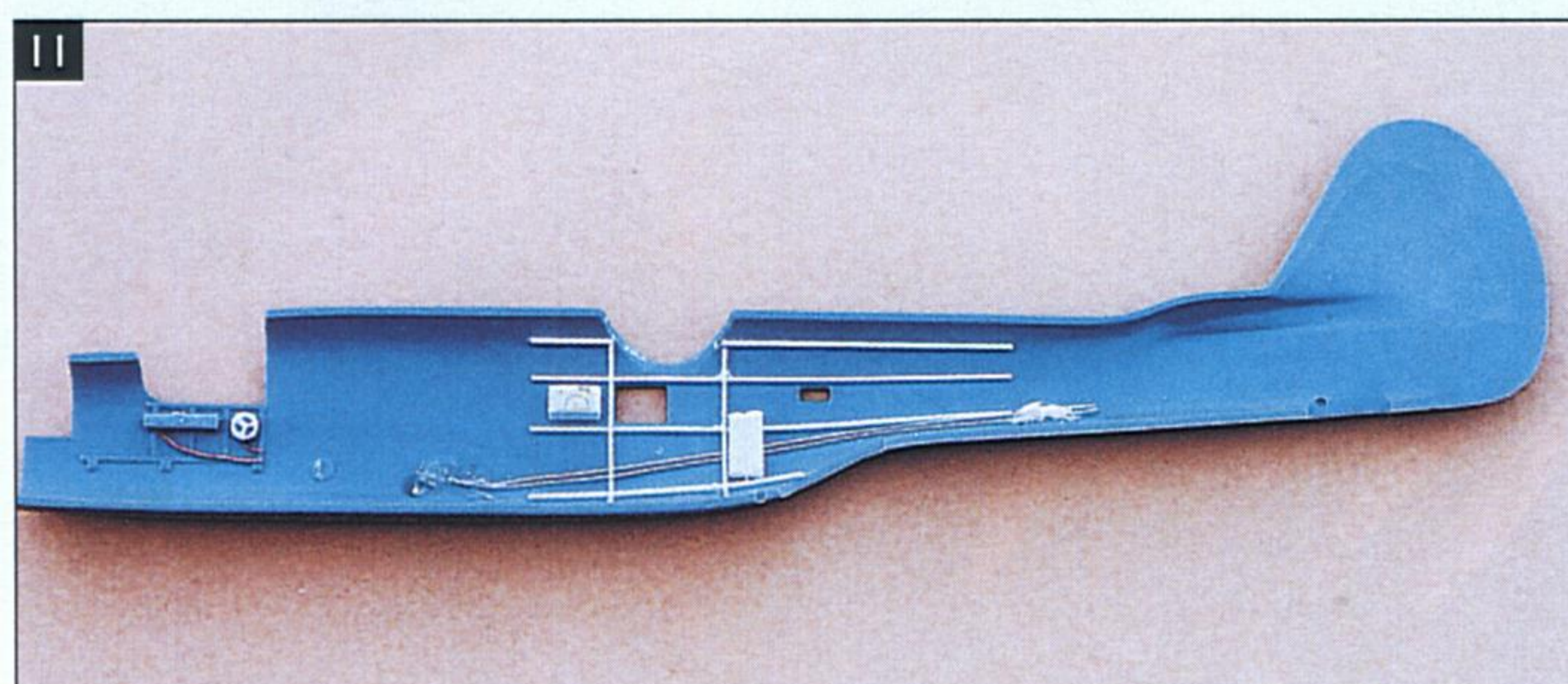
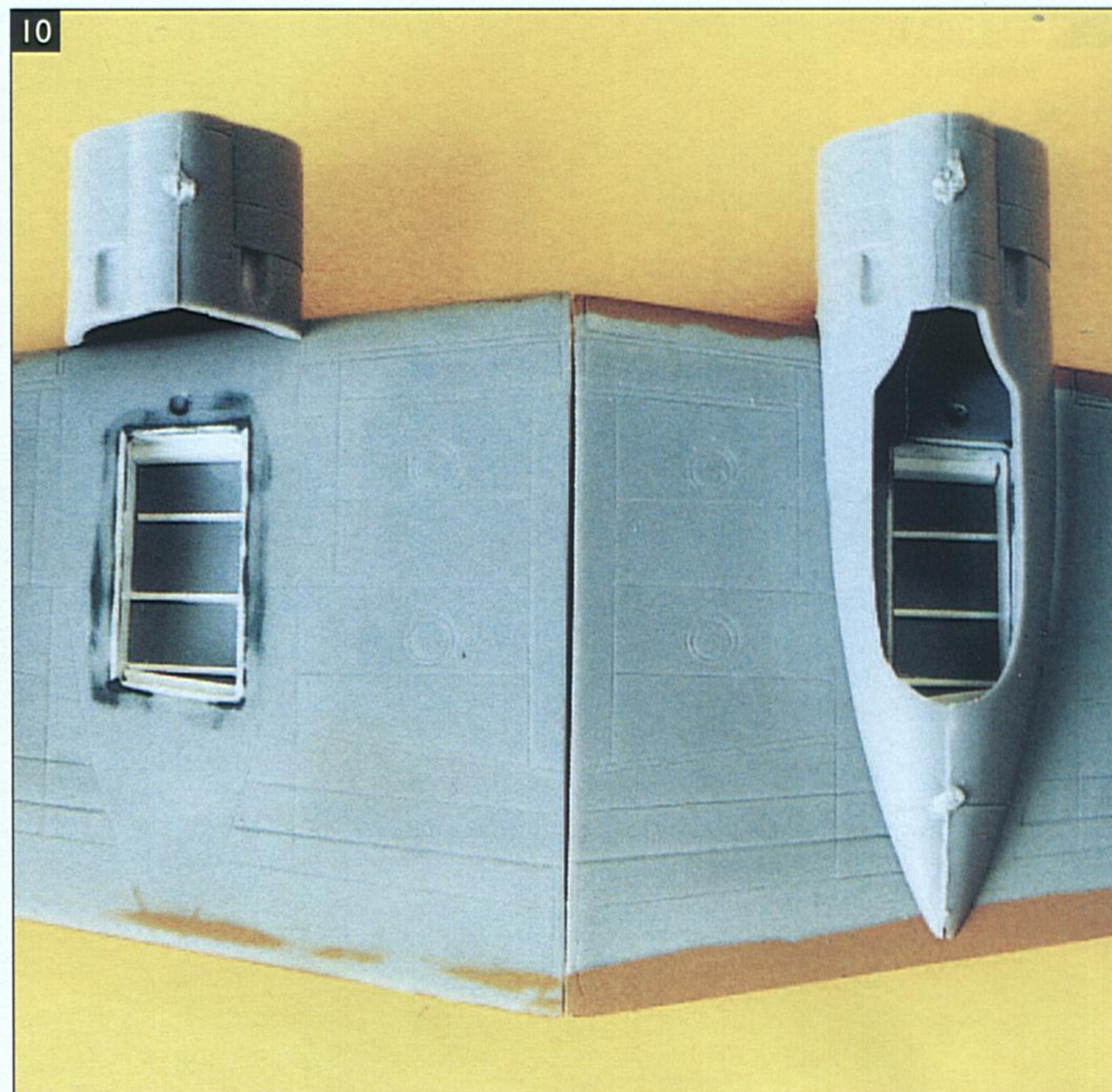
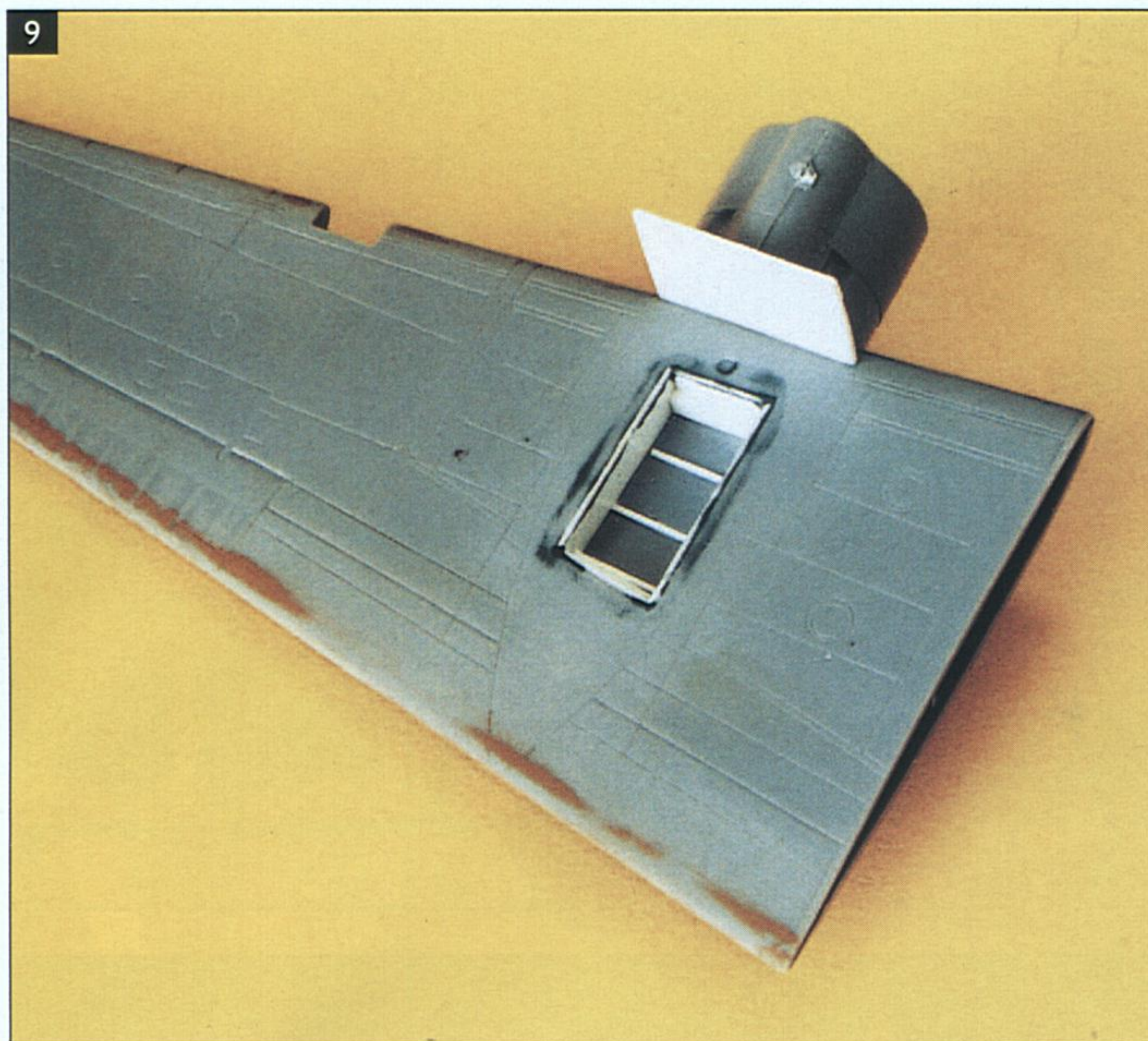
In Kit Form

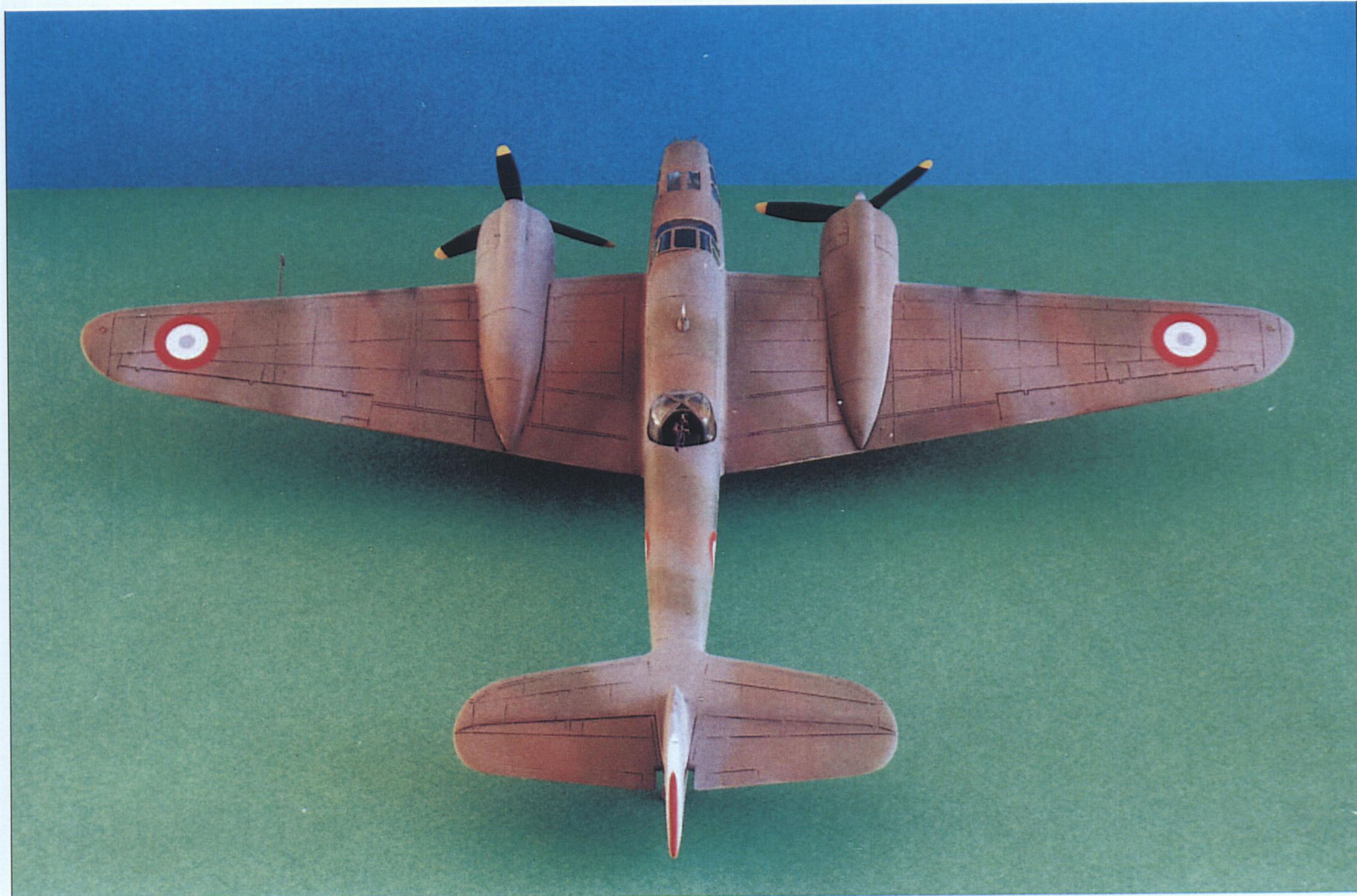
This is another kit from Azur that I was eager to get my hands on, as previously all that was on offer was the old mould from Frog which was also updated once by Hi-Tech of France. This type of aircraft is very

important for 1939/1940 French Air Force addicts such as myself. The kit from Azur is moulded in a very crisp medium grey plastic. All the pieces are distributed between three sprues (See Photos 1 to 3). There are nineteen resin parts to detail the cockpit and to build the propellers with one boss and three separate blades (See Photo 4). The clear parts are injected and very fine (See Photo 5).

I started this kit by working on the wings. The wheel wells are not deep enough as in this kit the engine cowlings just wrap around the wing contour. To solve this problem I drilled some holes in the wing undersurface. I created a wheel well of 10mm width, limited at front and back by the two wing spars. I closed these apertures with sheet styrene, which I sanded to the same level as the wing surface. Obviously I had to use a bit of putty

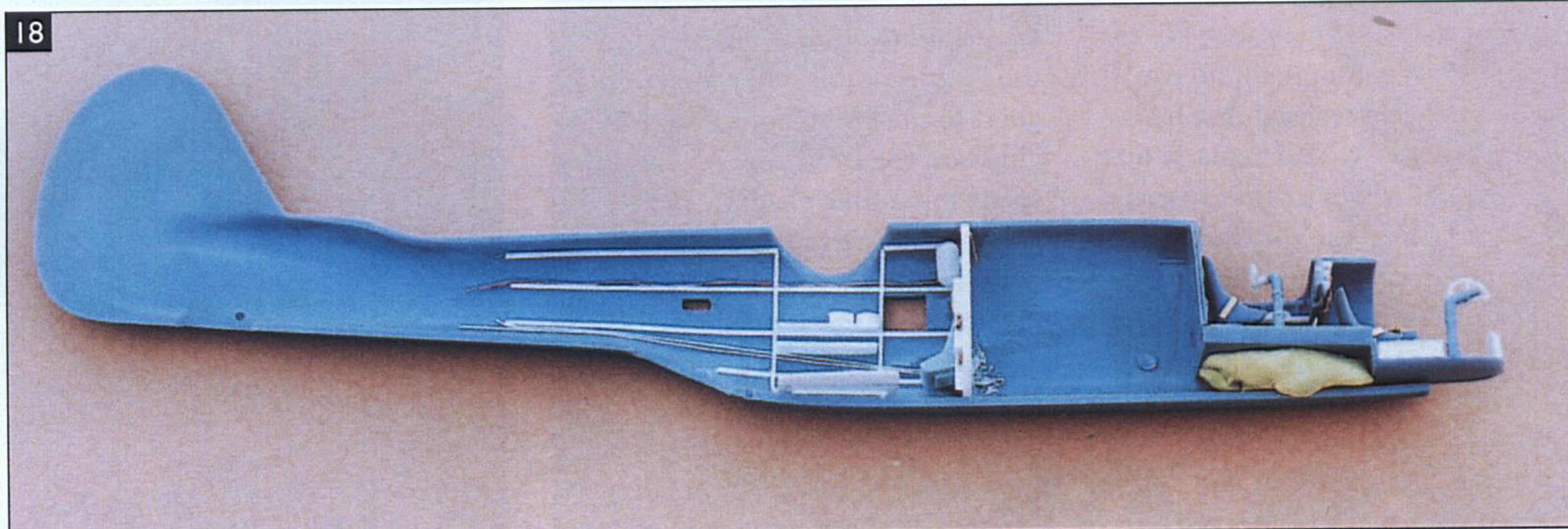
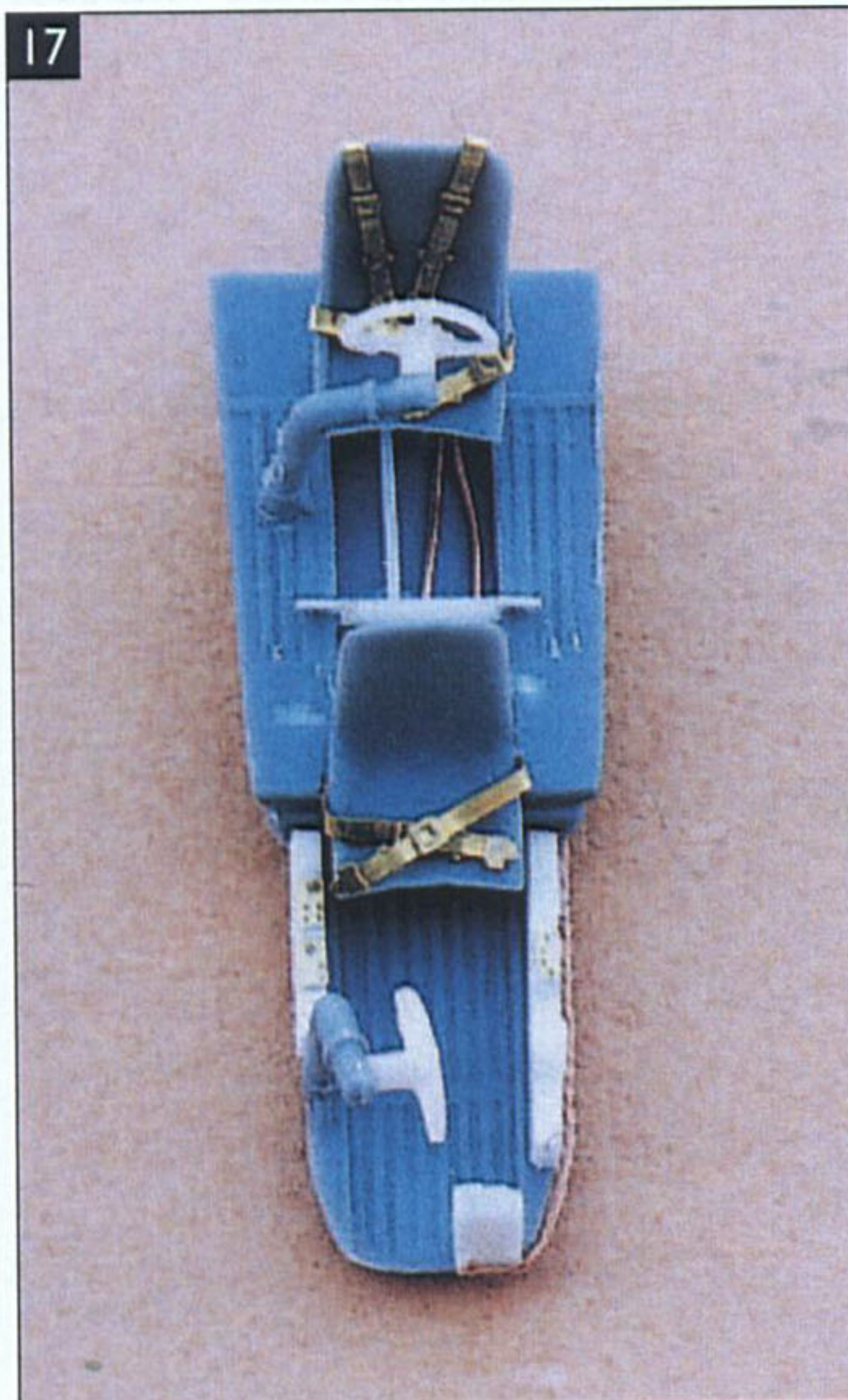






and smooth the finish with a layer of matt paint (See Photos **6** & **7**). The landing lights are just engraved in the wing leading edge and I had to cut them following the lines. I closed the interior with sheet styrene (See Photo **8**) and I used a little clear sprue to act as the light. To create this I sanded flat one side of a piece of clear plastic and drilled a 1 mm hole to simulate the bulb. I painted this silver before painting all of this part Xtracolor Matt Interior Green (X117).

To create the wheel well I glued the two halves of the cowlings (parts 11/12 and 13/14) together and cut the forward portion off following a line just aft of the engine exhausts.



Next I added a bulkhead made of sheet styrene and glued the severed portion to it. It was necessary to later file the joint area of the aft sections of the cowlings to ensure this remained the same length as the upper section (See Photos **9** & **10**). My last task with the wings was to sand the trailing edges to achieve a better scale thickness.

There is a small problem with the fuselage as the windows are just engraved and one is in the wrong place. I simply made square holes in the plastic and cut windows to size from spare parts. As I said, the starboard main window has to be moved aft, beneath the turret and because these parts are not offered as apertures in the kit at least I was spared the task of filling the old window down before cutting out the new one!

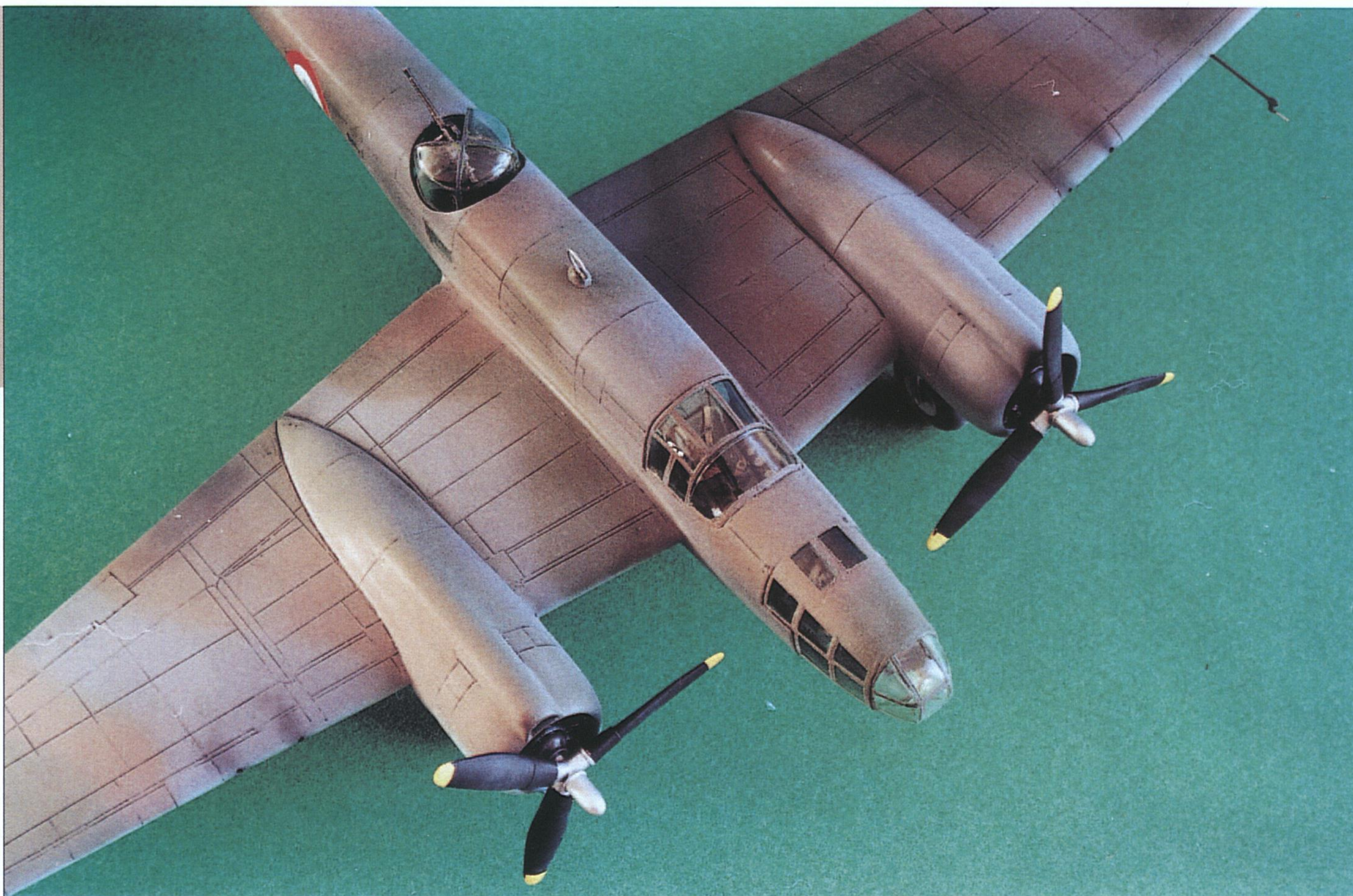
Next I moved on to tackle the interior detail of the fuselage. There is plenty of room inside this bomber to add detail. The kit does offer a

small number of detail parts for the pilot and navigator/bombardier's positions, but the radio/gunner compartment is quite empty. Therefore on the starboard side of the fuselage I added a short length of fuse wire to the right hand of the pilot's seat. I used some lengths of 1/25th inch rods to simulate the stringers and the formers. I put in a radio set with an etched radio face from my spares collection. I also added two oxygen bottles and 1/100th inch electrical wire for the control cables (See Photos **11** & **12**). On the port side I worked a little harder (See Photo **13**), starting with the instrument panel to which I added the rear sections of the instruments. For this I used small lengths of 1/25th inch rod and fuse wires (See Photo **14**). As on the other side, alongside the rear gunner I added stringers, formers and control cables. I cut two shelves in sheet styrene for the ammunition boxes, two of which I made from

1/10th inch rod. I also made a plank for the gunner in the lower position and I drilled a small hole there to glue in the machine gun later (in this case the MAC 34 gun from the Aeroclub range). I then built a bulkhead to separate the gunner's compartment from the bomb bay. I used this bulkhead to attach the gunner's seat and some radio equipment to (See Photo **15**). Lastly I added some details to the pilot's and navigator/bombardier's positions. I used two seat belt sets from True Details and some sheet styrene parts for the consoles. I also added some rudder pedals, which I prefer to make myself, as they are thinner (See Photos **16** & **17**).

I had to adjust the floor a little in order to close the fuselage halves with all that extra detail I had added (See Photos **18** & **19**).

I airbrushed all of the interior with Matt Interior Green (Xtracolor X117) and brush painted all the small details with black and



different shades of grey (See Photos **20** & **21**). When I glued the two fuselage halves I realised that it was not a piece of cake, particularly just in front of the pilot's canopy where I had to compensate for the small difference in shape. For that I again used some putty and matt paint to show up all the blemishes (See Photo **22**). Consequently I had to re-engrave the sanded lines.

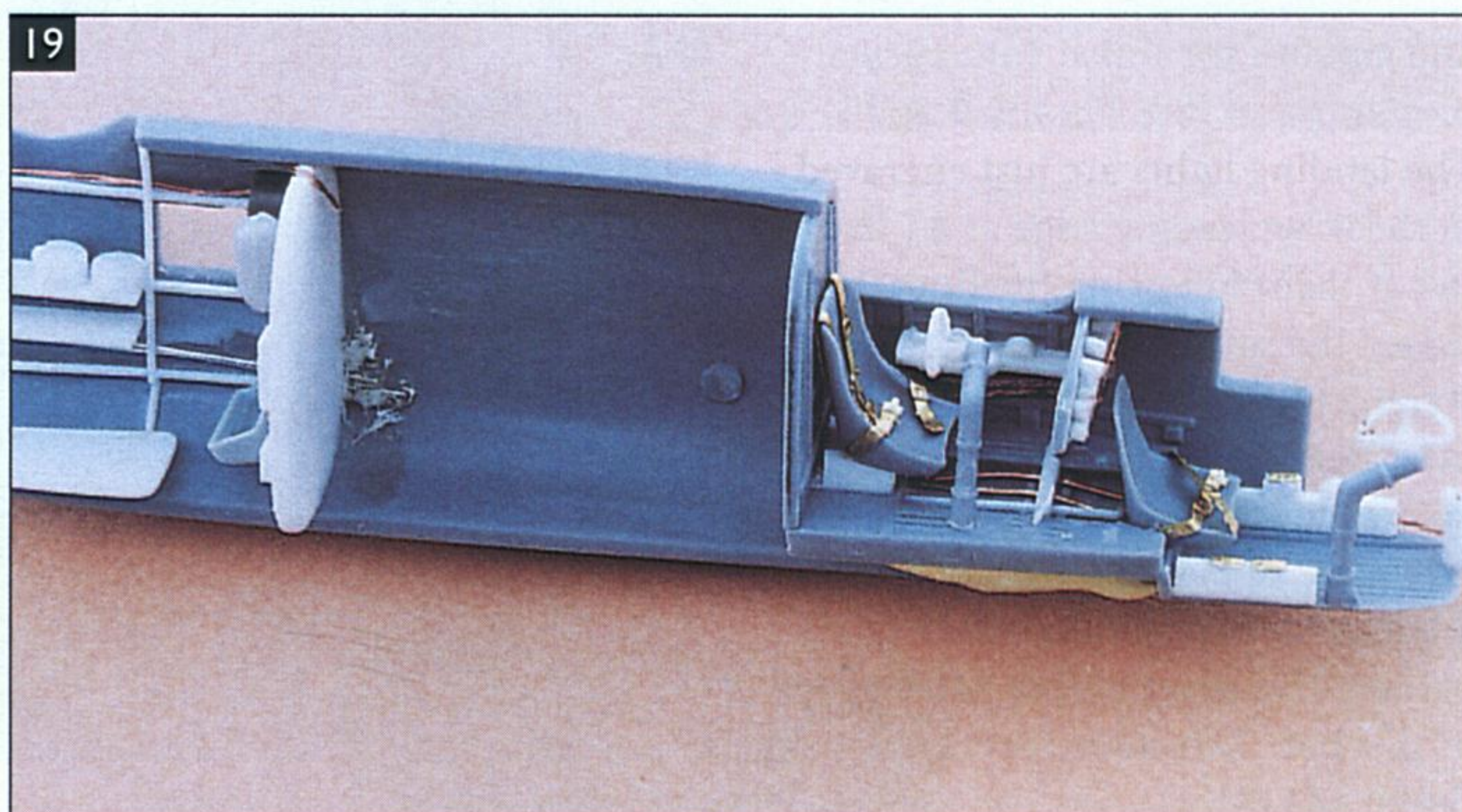
The two intakes above and beneath the front cowlings are not deep enough and I chose to drill them out (See Photo **23**). Of course I had to close the new holes on the inside, which I did with a small piece of sheet styrene which I cut to shape before sanding (See Photo **24**). In the kit the engines are quite nice but wrong as they are a nine-cylinder type. I picked from my spares box two 14-cylinder engines of the right diameter which probably originate from a Far Eastern manufacturer's kit! With

some paintwork and fuse wire for the ignition cables they look pretty good to me (See Photo **25**). I then glued on the front cowlings and spent some time sanding and re-engraving around this area.

Obviously to move this bomber the engines need propellers so I first made a hole in the back of the propeller boss to take the shaft made of 1/25th inch rod. After that I carefully glued the blades with exactly 120° between them whilst trying to keep them all at the same angle. My references told me that I had to reproduce the propeller cuffs and to do this I used metal sheet from a jar of coffee (See Photo **26**).

With the main landing gear legs I added the brake cables from fuse wire and the torque links from an old photo-etched set. I added the leg pivot via a small rod that passed through a pre-drilled hole in the upper part of the leg (See Photo **27**).

I prepared the clear parts and I

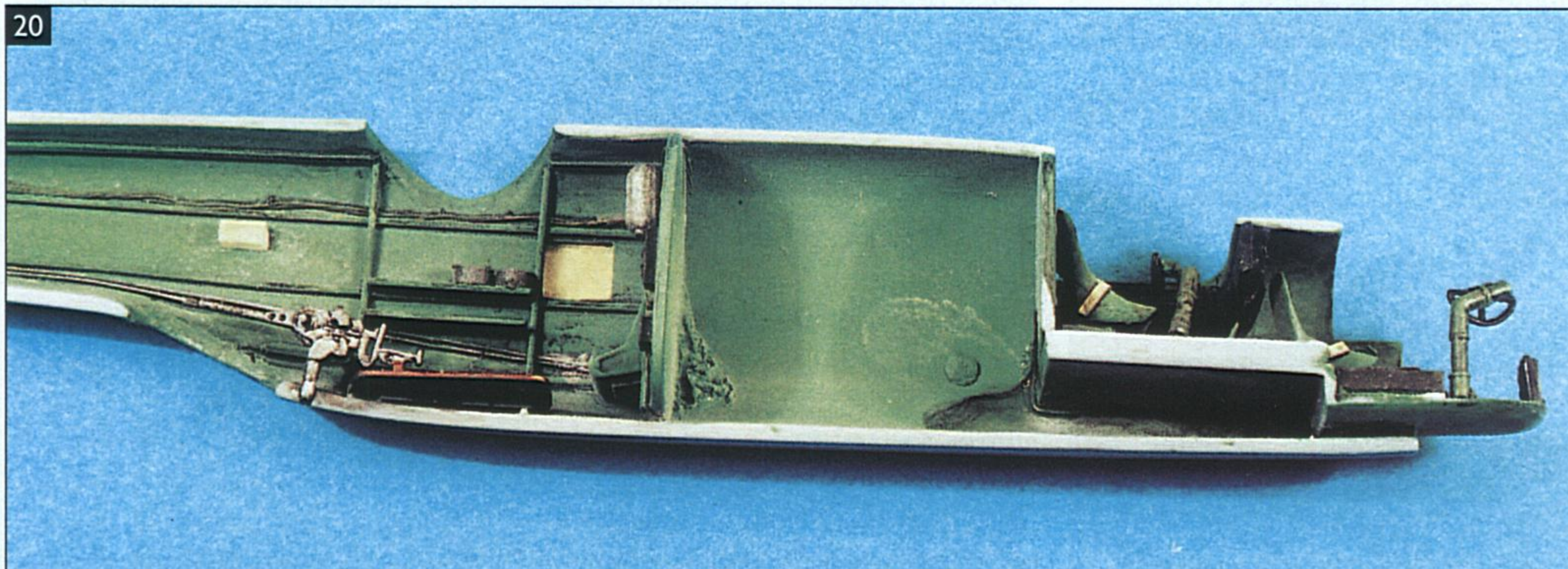


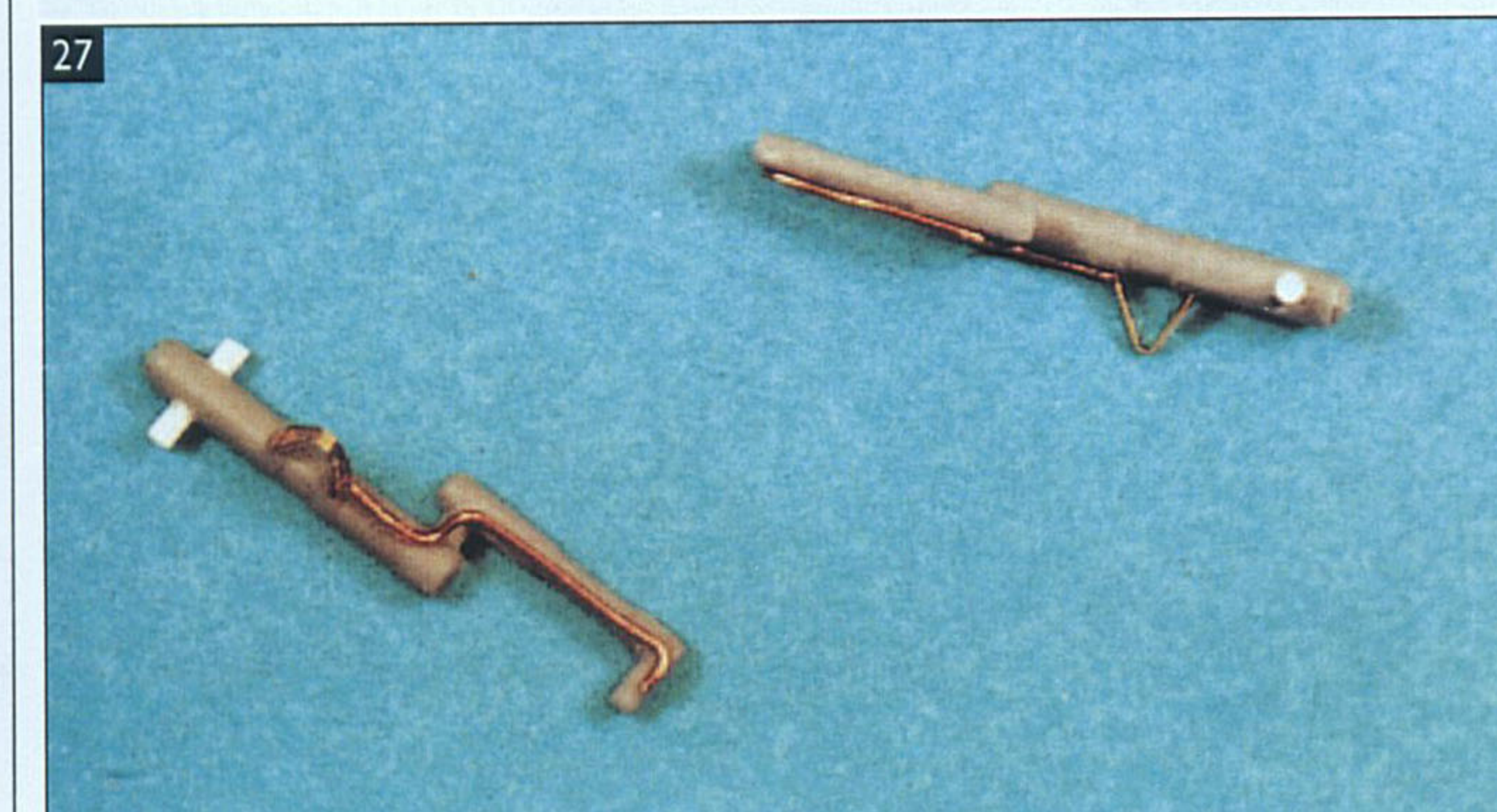
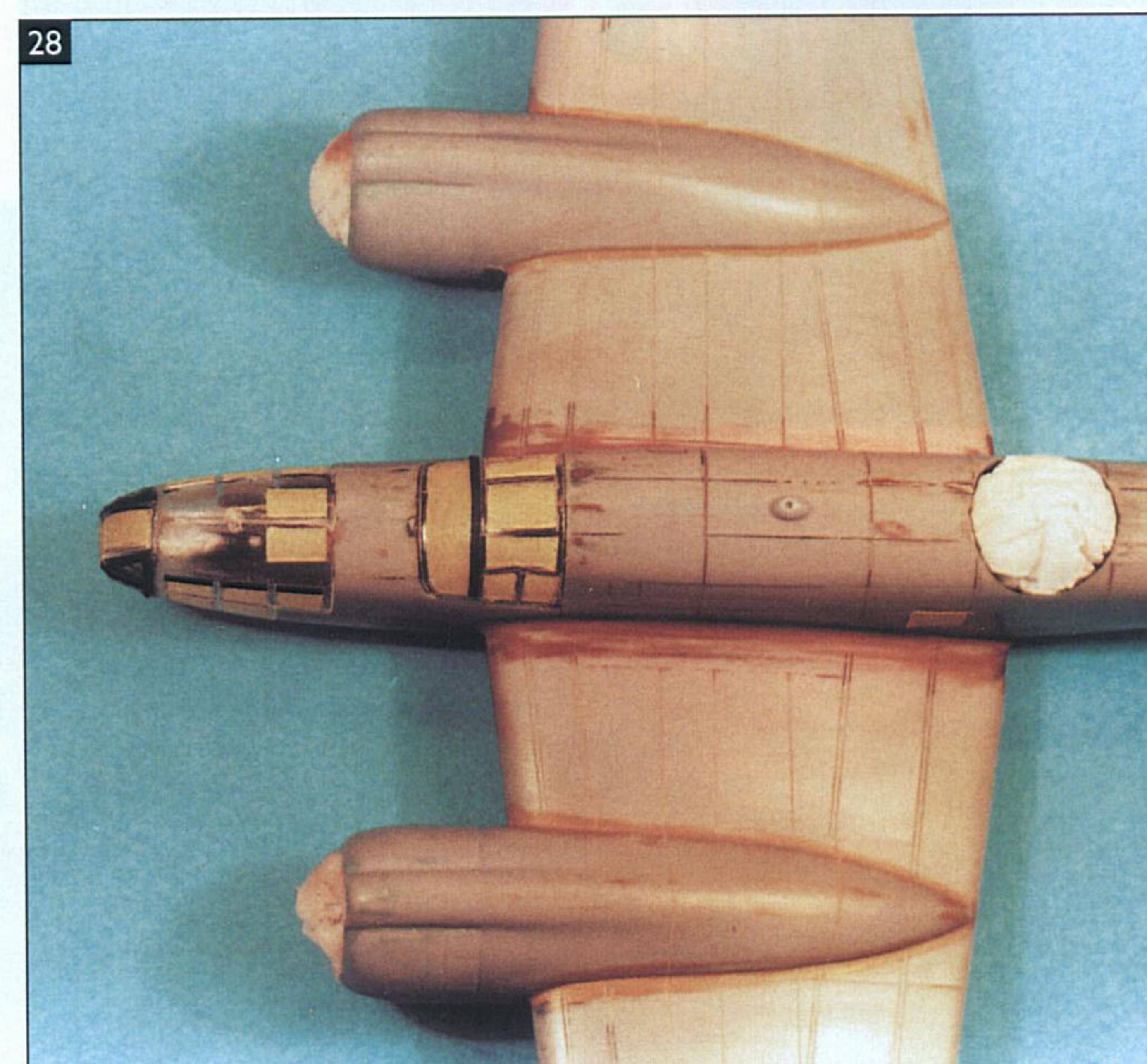
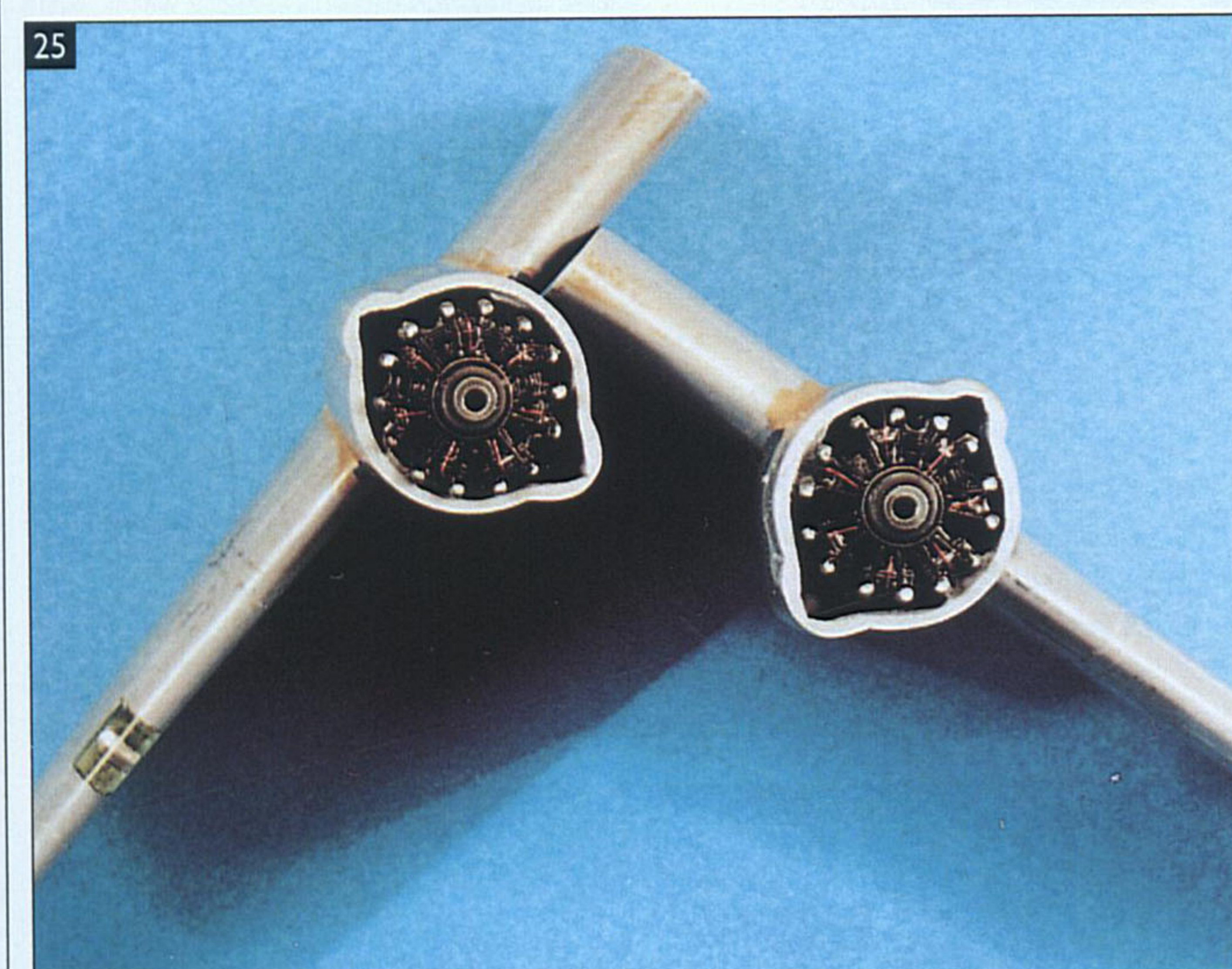
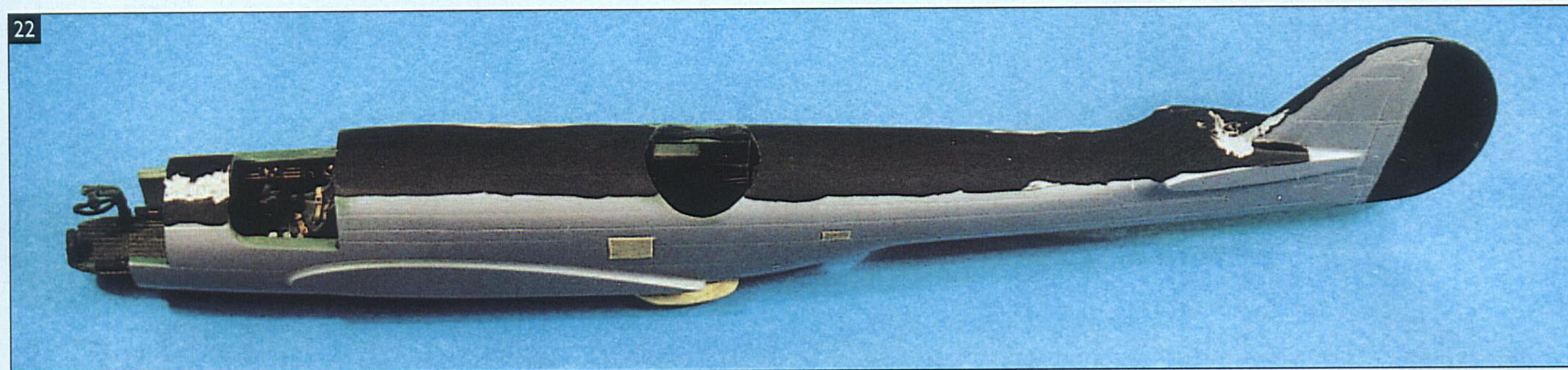
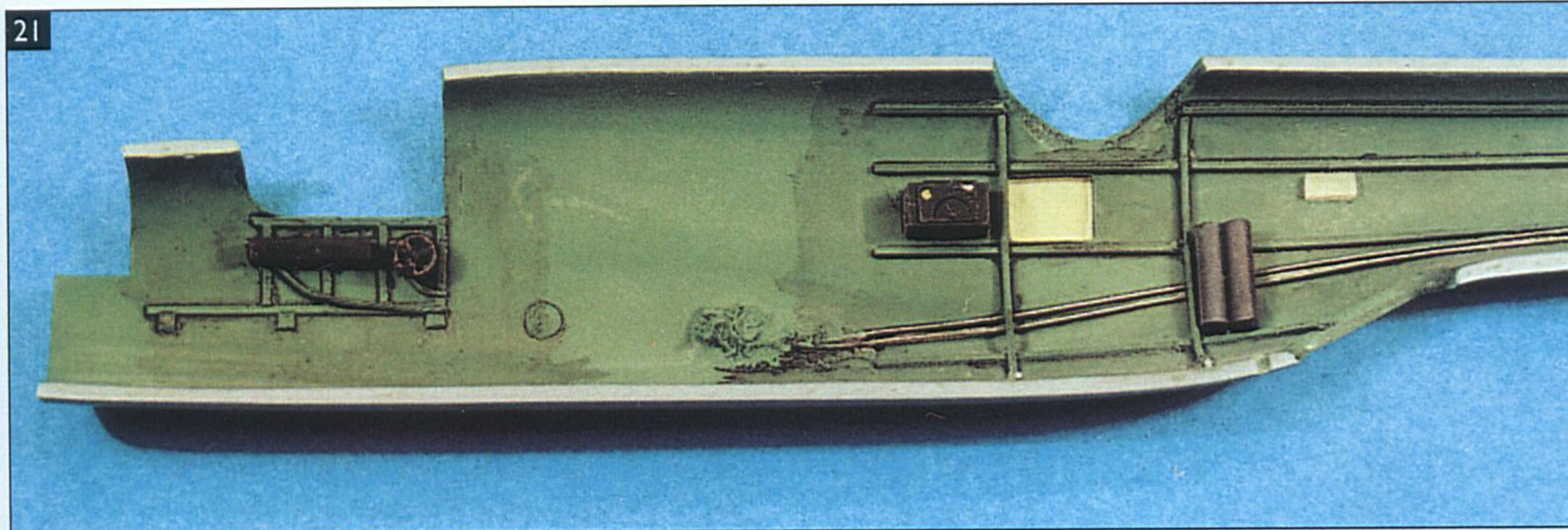
did experience some problems when I cut them from the sprue. Luckily the attachment points were mainly on areas that would be painted. As the entire nose area is supplied in clear plastic in this kit I had to check my references to pinpoint the correct location of the various panels above and beneath the bombardier's station. Because of the sanding and filling required on the

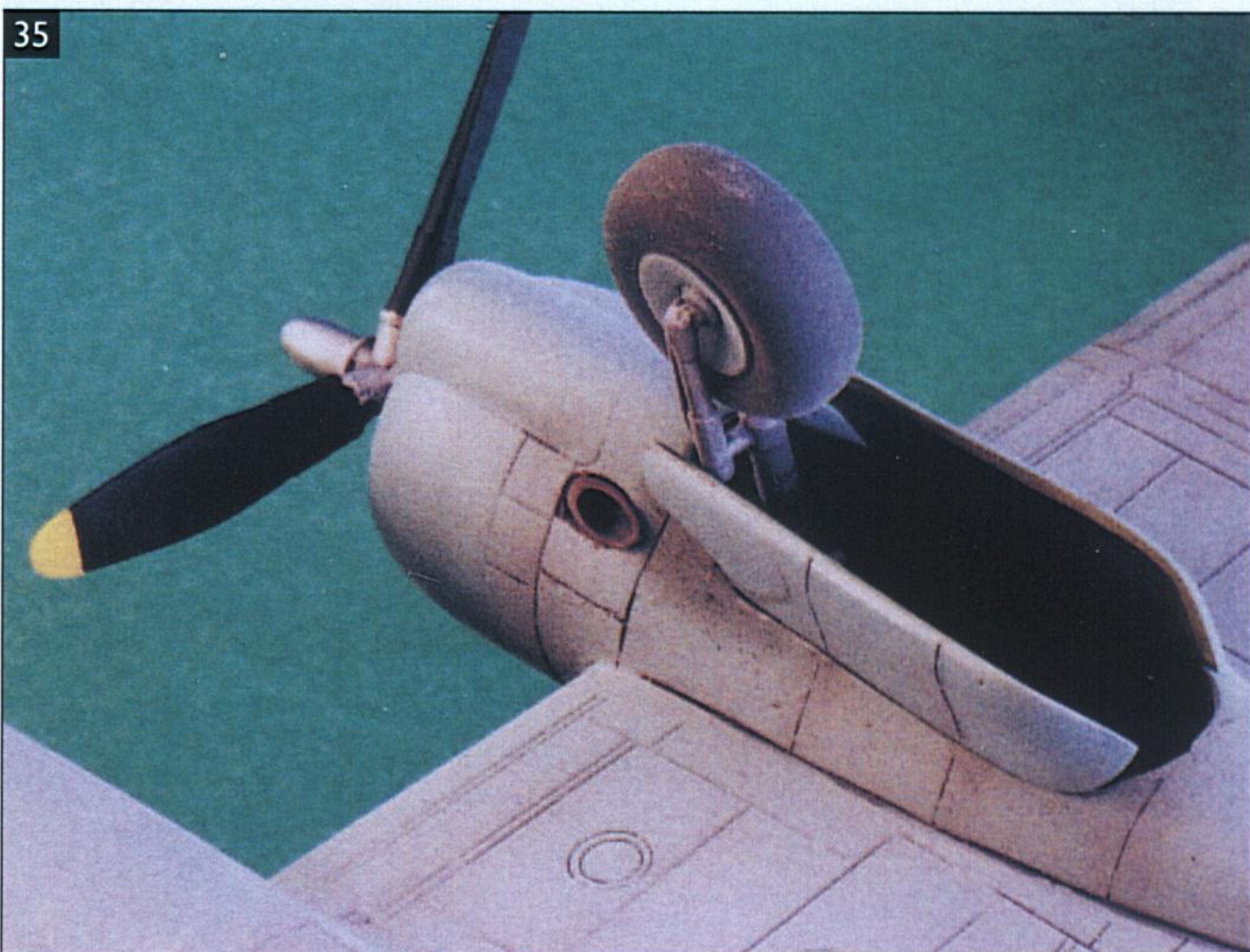
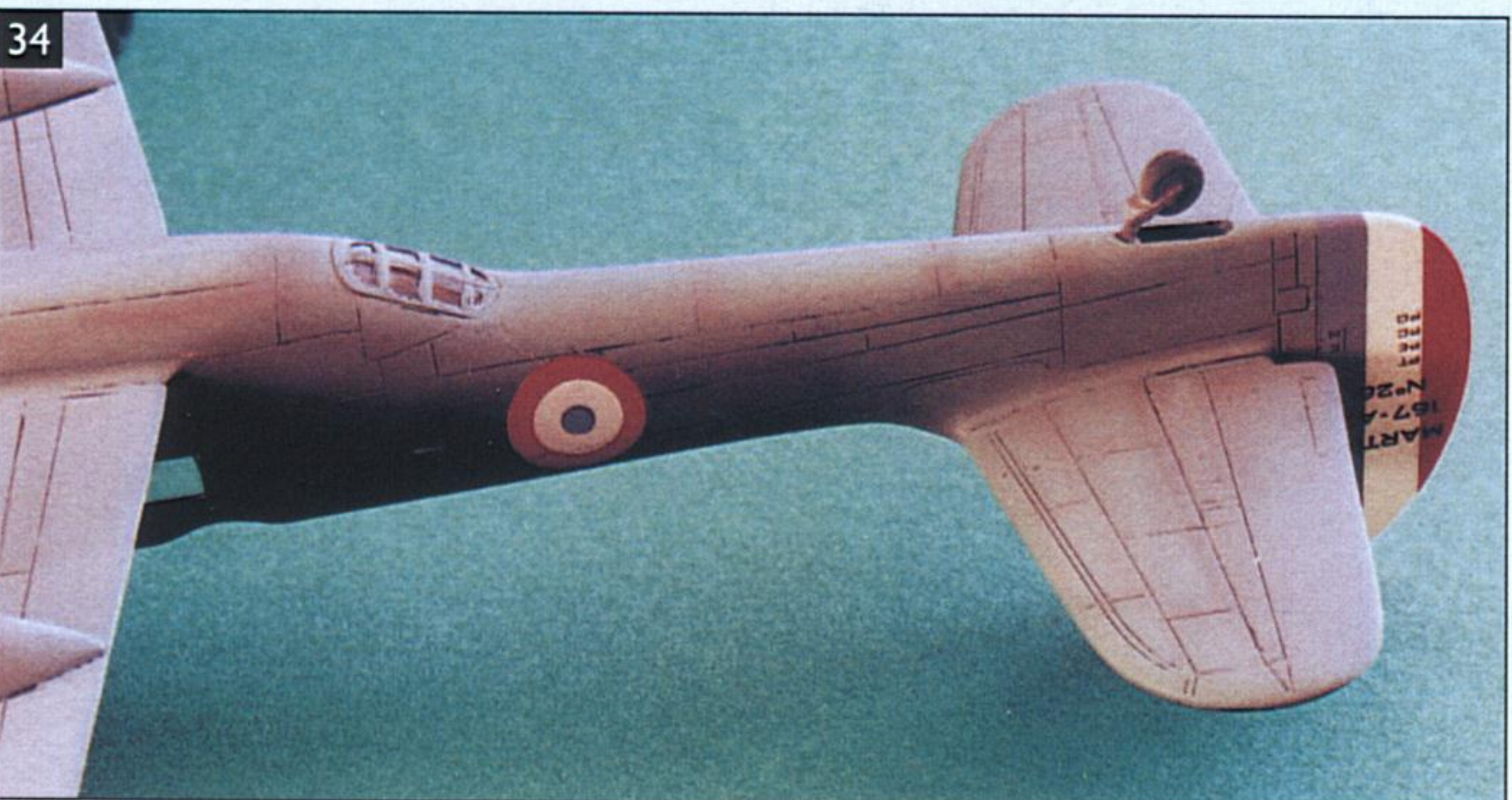
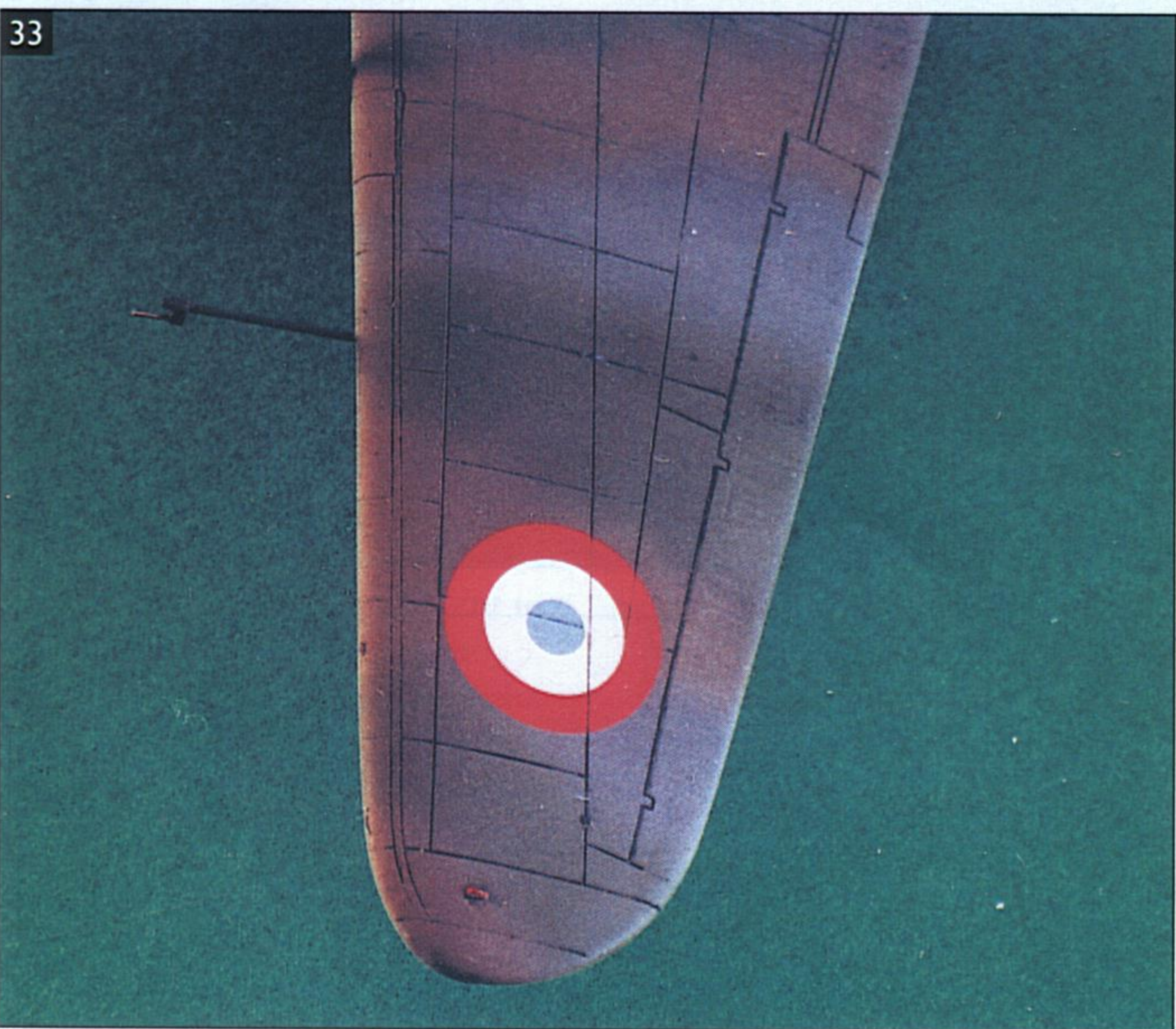
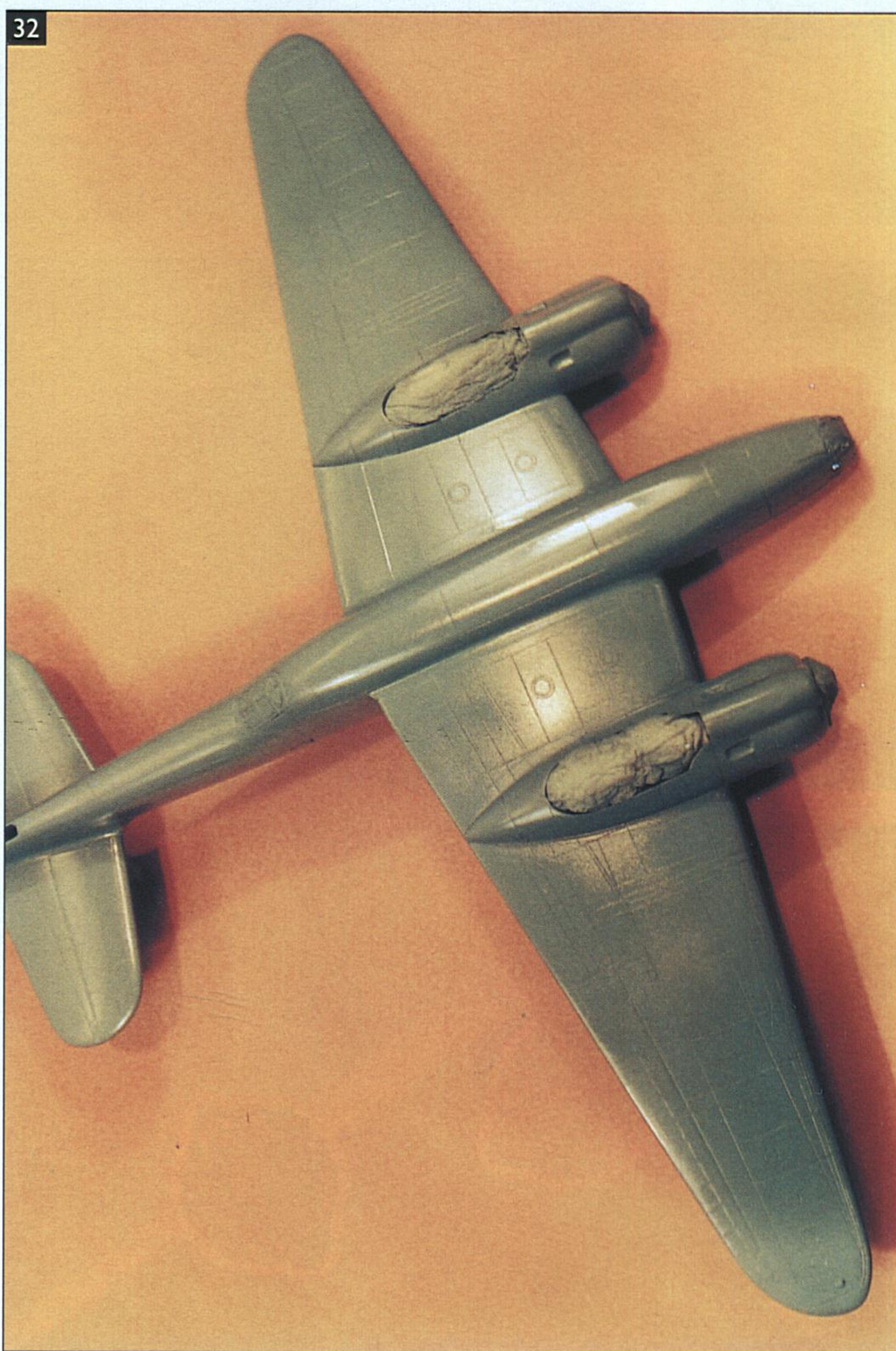
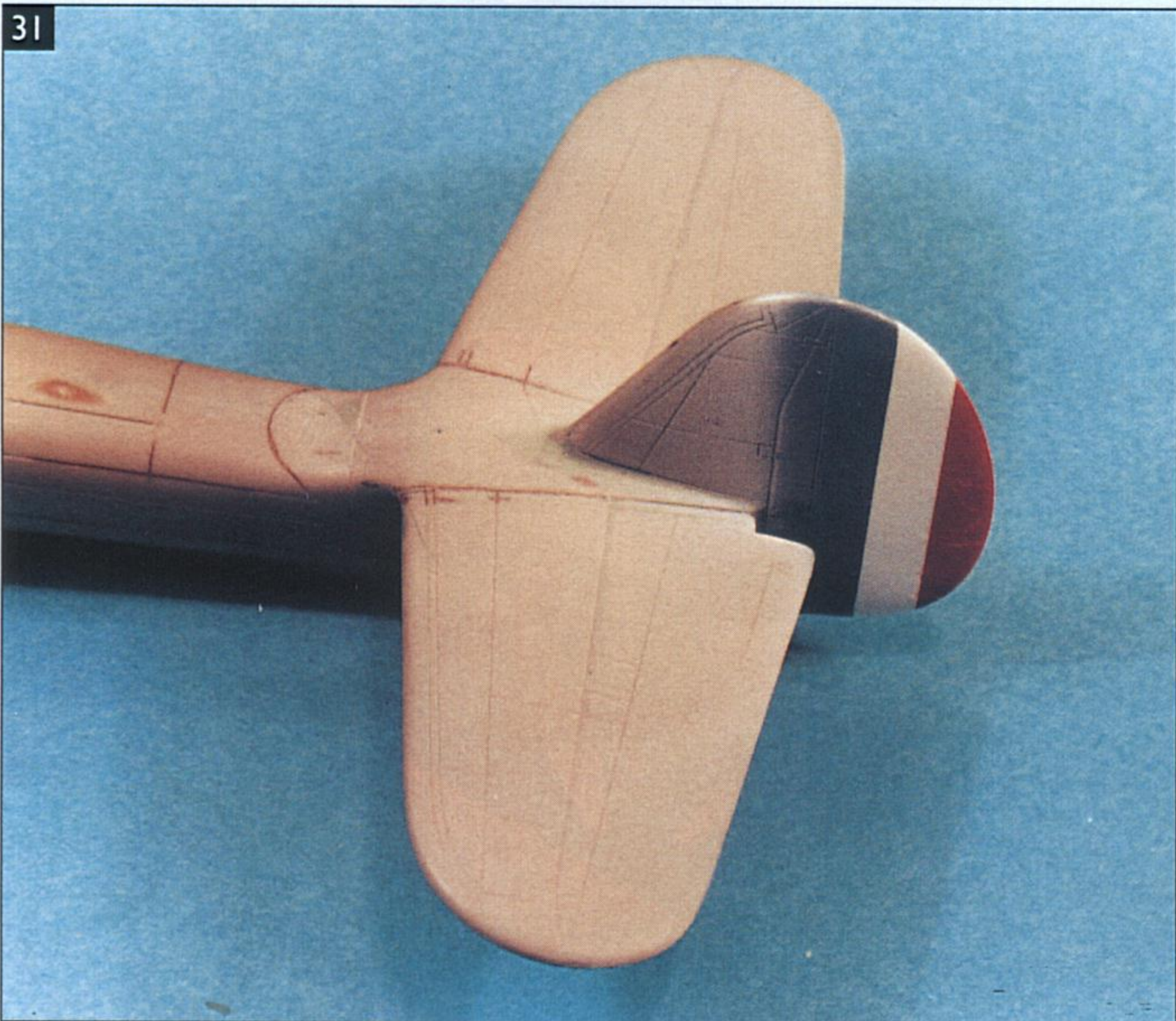
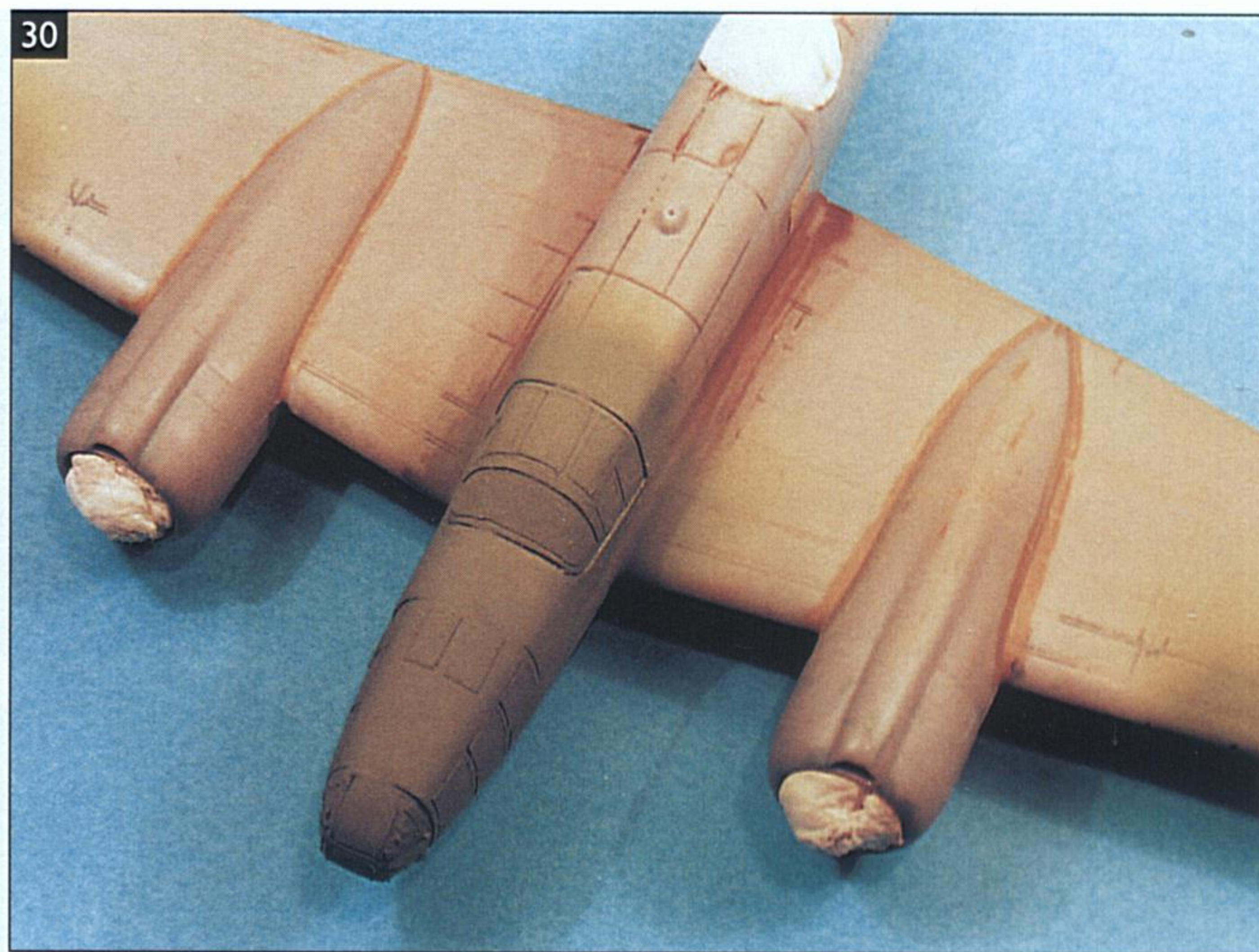
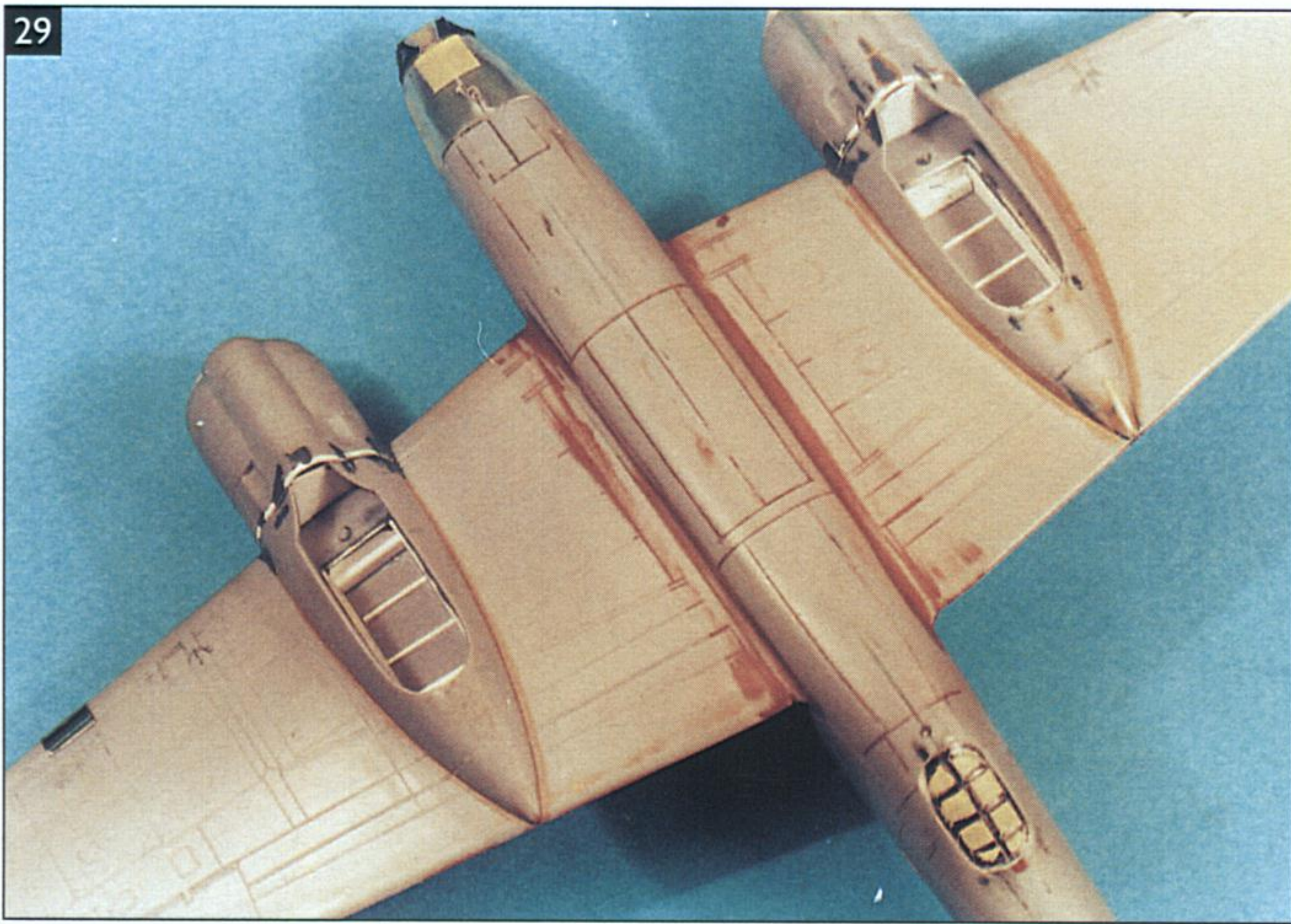
nose sections I had to later resand all the 'clear' sections with very fine sandpaper and then polish out any blemishes. All of the transparencies were then masked off with Tamiya masking (See Photos **28** & **29**) prior to spraying.

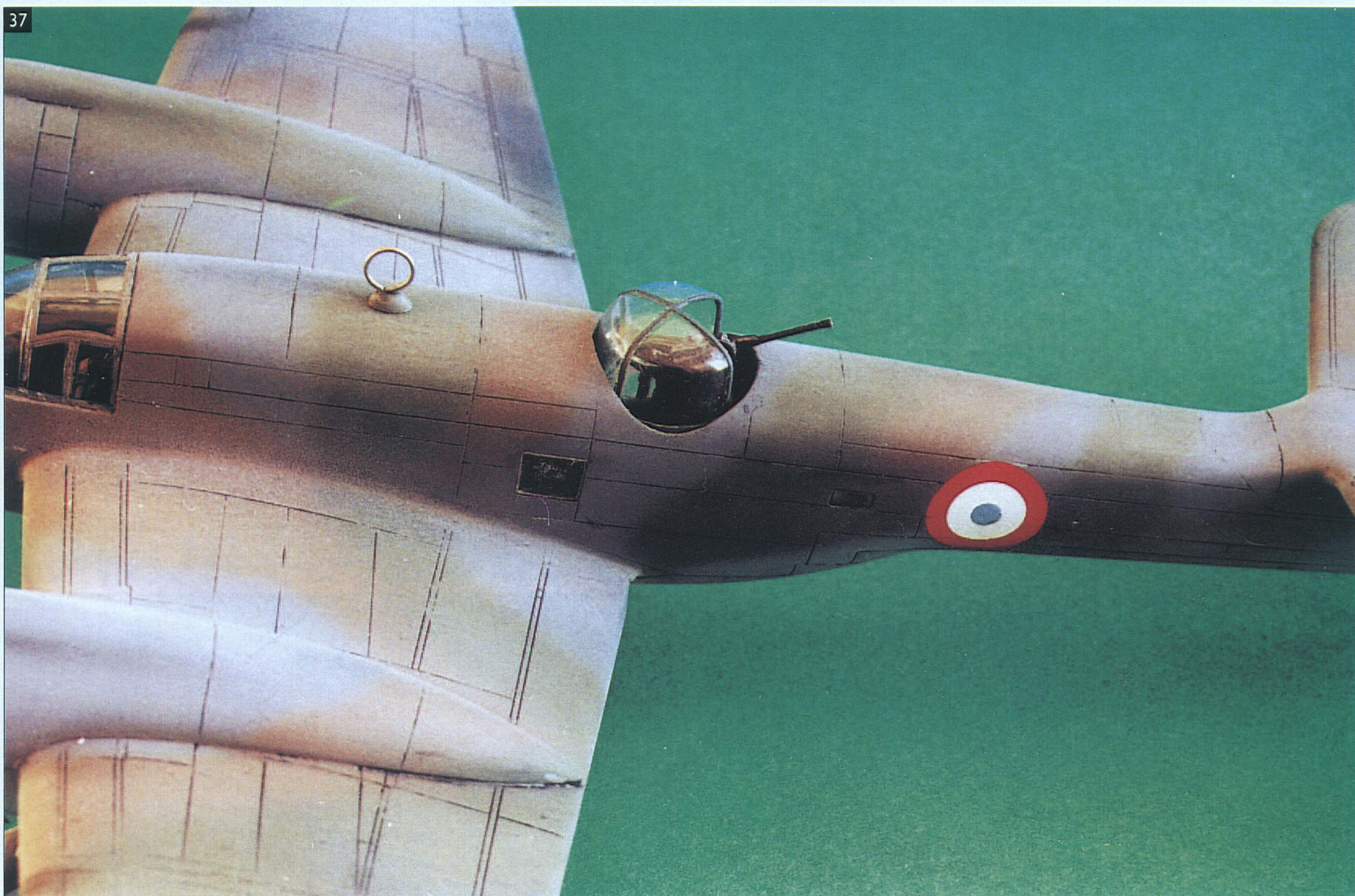
Colour Scheme

When the time came to choose a particular aircraft I first considered the subjects that were offered in the kit. There is a choice of two options: the first is a French Air Force aircraft from the lère Escadrille/Groupe de Bombardement 1/63 (Bomber Squadron 63, 1st Flight) at Bamako, Mali in 1942. This is a very colourful aircraft with red and yellow stripes on the tail and engine cowlings representing the Armistice French Air Force regulations of that era. The second option is a Desert Air Force Martin Maryland that was based somewhere in North Africa in









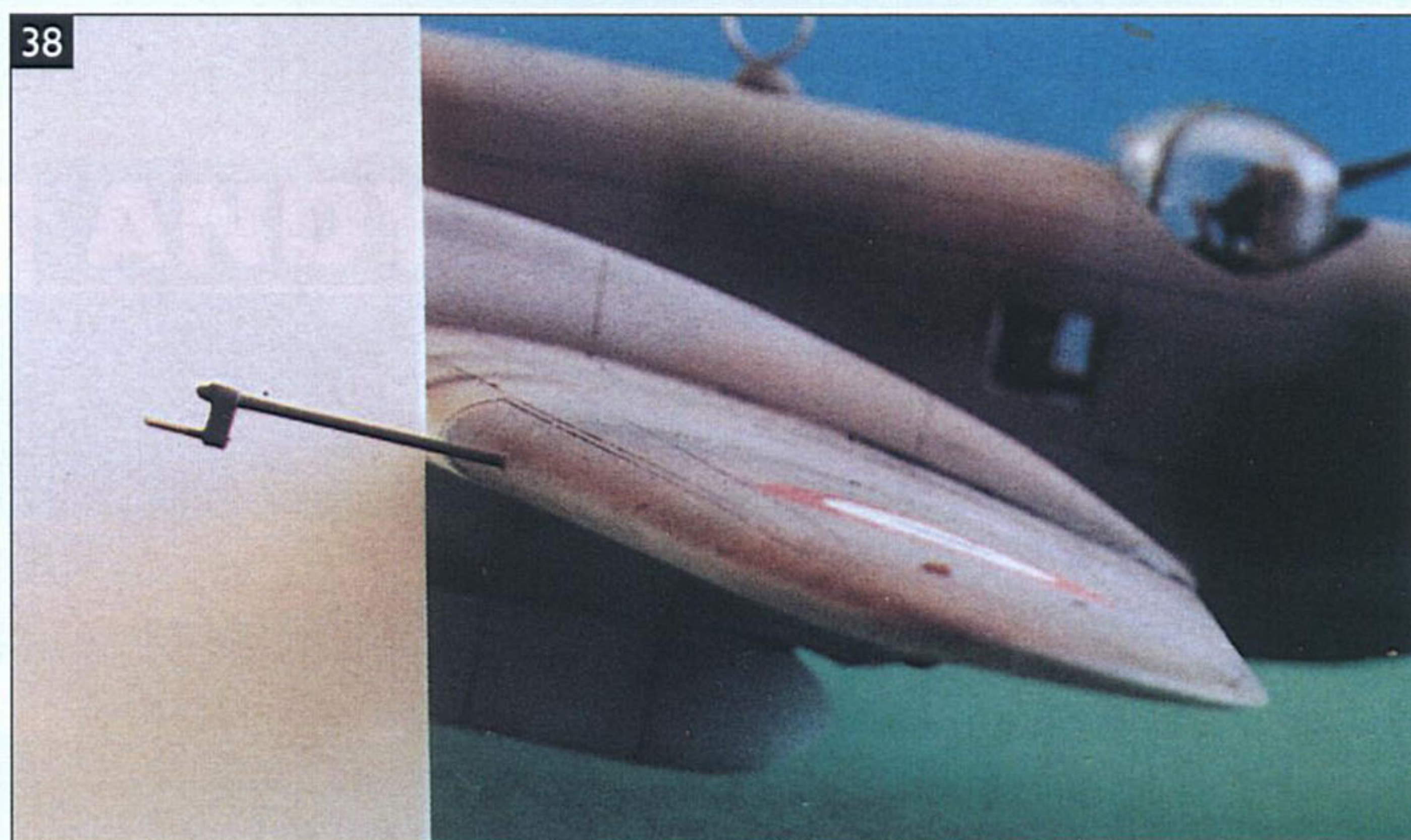
1942. This one (AH284) was too 'anonymous' from my point of view.

My preference though was to make one of the few Martin 167F that fought during the Battle of France in May/June 1940. So I looked for an aircraft whose fate was known. In the historical article by Jean Cuny and Raymond Danel in 'Le Fanatique de l'Aviation' I found aircraft No. 26 that fitted the bill. This aircraft was shot down by flak near the small village of Laucourt on the river Somme on the afternoon of June 7th 1940. It was an aircraft from the Groupe de Bombardement II/63 and the crew consisted of pilot SGC Bufferne (Flight Sergeant), the navigator/bombardier SLT Le Marchand de Trignon (Pilot Officer)

and the radioman/gunner SGT Chommeloux (Sergeant). All three men were unfortunately killed.

Painting

I closed any open areas on the model with some wet tissue. My first layer of paint was the Matt Interior Green (Xtracolor X117) on the transparencies to get the inner colour of the frames (See Photo 30). The same day I airbrushed Insignia White (Xtracolor X141) on the rudder. As I was not satisfied with the bombardier's canopy joint to the fuselage, I sanded it again and airbrushed another layer of Matt Interior Green on. During the painting session I added the Blue Grey (Xtracolor X603) and the Humbrol Insignia Red (19) to



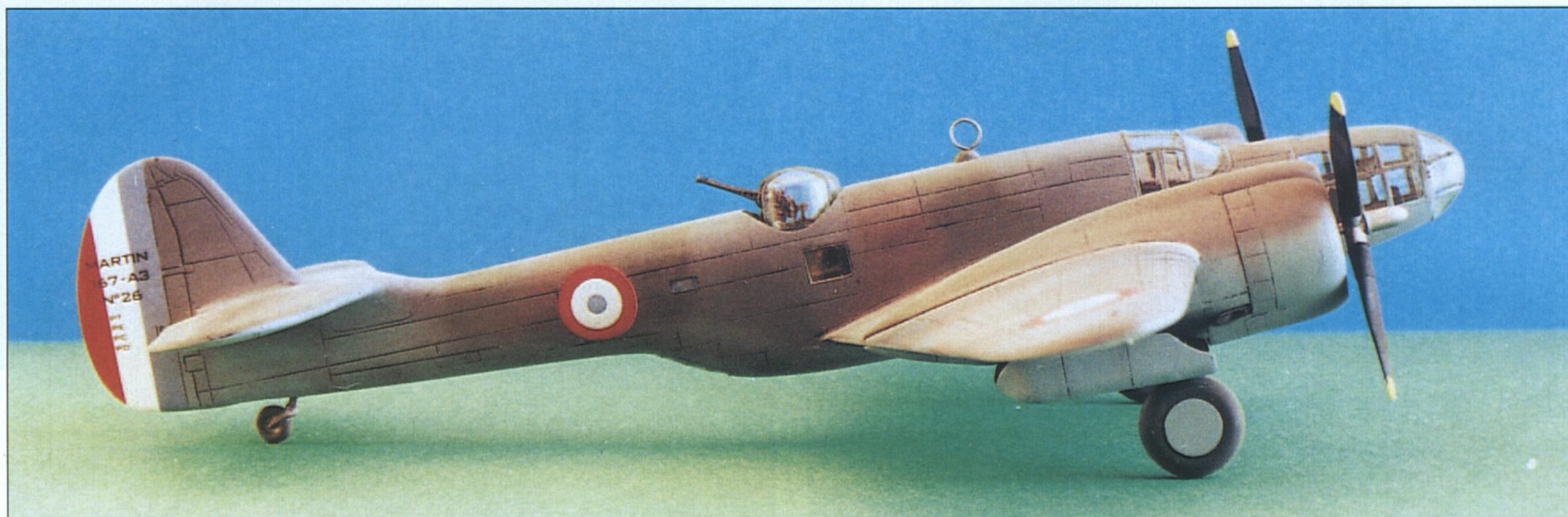
complete the French tricolor on the rudder (See Photo 31). The next day I painted the undersurface of the model with Light Blue Grey (Xtracolor X389) (See Photo 32).

My last spraying session related to the upper colours, which I airbrushed on directly one after the other. I used Ombre Calcinée (Xtracolor X386), Khaki (Xtracolor X384) and Dark Blue Grey (Xtracolor X388).

Decals

Decalling this model was quite easy. I used the kit-supplied markings and part of the number from the rudder, as this is supplied as 265 and I needed 26. I had to look for fuselage roundels as the kit schemes only use four. I chose one from a Carpena sheet but unfortunately the blue centre was not the same as the rudder and the other roundels. To overcome this I used a punch and die set, to cut a 3mm circle out of the blue element of the unused kit-supplied rudder decal and then overlayed this on the Carpena roundel. The kit decals are very



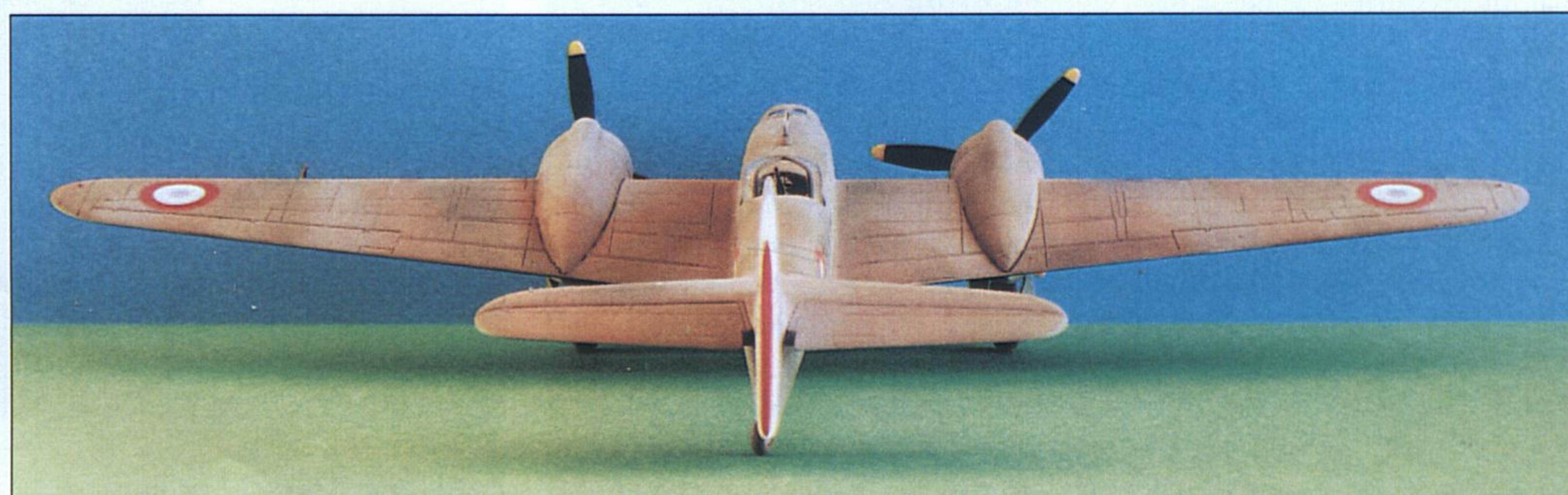


good and the white is translucent enough even on the dark colours of the camouflage.

Final Painting & Detailing

I let dark grey ink flow into the engraved details to highlight them (See Photo 33). After I had airbrushed on a layer of matt varnish, I further highlighted the panel lines with a brush-applied coat of dark grey pastel powders (See Photo 34).

It was at this moment that I realised I had lost one of the engine exhausts. I was not convinced by their shape anyway so I made new ones. I used a 1/10th inch tube, the inner diameter of which I increased, and then cut to shape (See Photo 35). I painted the propellers in Matt Black (Xtarcolor X404), Aluminium (Humbrol 56) and Insignia Yellow (Humbrol 154) before putting them in position (See Photo 36). I also added the Aeroclub MAC 34 gun to the turret at this point and removed one quarter of the cupola to make it more accurate (See Photo 37). I drilled four holes in the wing leading edge to represent the Browning fixed machine guns. I only added the DF loop antenna, made from telephone wire, as I could see on photographs that the



Martin 167F did not have the antenna mast on the upper fuselage during the Battle of France. The last item I made was the pitot, as the one offered in the kit is of the wrong shape. Mine was made of steel wires linked with a small stripe of tin (See Photo 38). Finally I added a touch of Silver (Humbrol 11) and Tamiya Clear Red (X27) or Clear Green (X25) to the port and starboard lights.

Conclusion

I quite enjoyed building this Azur kit and I am proud to add this fitting tribute to the 1940 French Bombing Force to my shelves, and which together with the Battle and Blenheim of the RAF squadrons, selflessly tried to stem the rush of Panzer divisions.

Patrick Branly

• Le Fanatique de l'Aviation No.171, February 1984

References

- Replic No.135, November 2002
- Scale Aviation Modeller International Vol.7 Iss.8, August 2001
- Scale Aviation Modeller International Vol.7 Iss.9, September 2001
- Aérojournal No.8, August-Sept 1999
- Aérojournal No.9, October-November 1999
- Le Fanatique de l'Aviation No.157 to 162, Dec 1982 to May 1983
- Le Fanatique de l'Aviation No.166 to 168, Sept to Nov 1983

Martin Baltimore Mk I/II

Scale: 1/72nd	Kit No: A025
Price: £13.85	
Panel Lines: Recessed	✓
Status: New Tooling	✓
Production: Limited	
Type: Limited-Run Injection Moulded Plastic & Resin	
Components: Plastic 74 (Grey), Resin 23, Clear 7	
Decal Options: 3	
Manufacturer: Azur	
UK Importer: Hannants	

Martin Baltimore Mk III/IV/V

Scale: 1/72nd	Kit No: SH 72028
Price: £14.45	
Panel Lines: Recessed	✓
Status: New Tooling	✓
Production: Limited	
Type: Limited-Run Injection Moulded Plastic & Resin	
Components: Plastic 77 (Grey), Resin 23, Clear 9	
Decal Options: 3	
Manufacturer: Special Hobby	
UK Importer: Hannants	

Note:

If you want to build the Maryland in 1/48th scale you can either build the Koster vac-form kit (See full build article in Vol.7 Iss 8 & 9 August & September 2001) or the new injected kit from Fonderie Miniatures.

If you want to build the Baltimore in 1/72nd scale it is available from both Azur and Special Hobby, albeit for different versions (see below).

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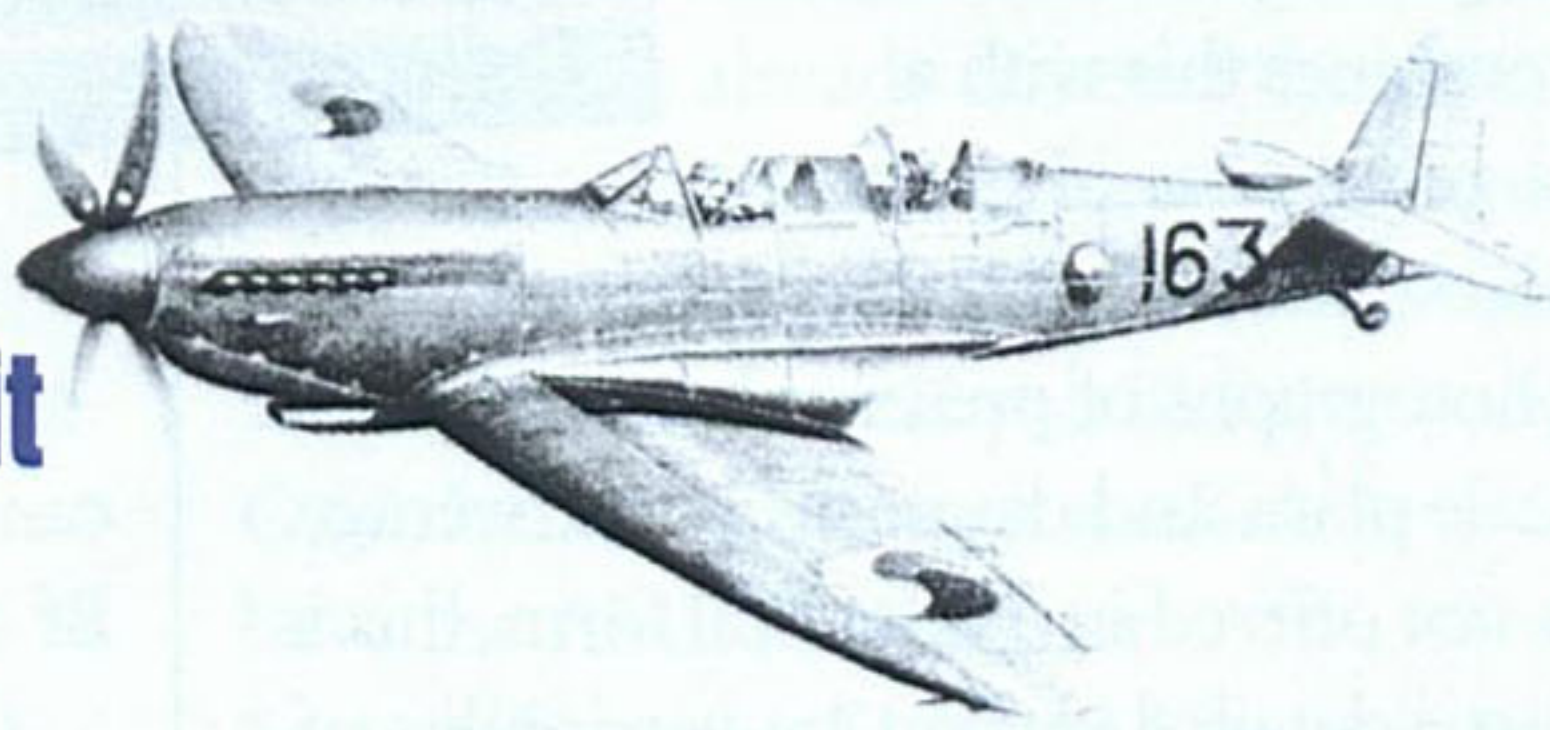
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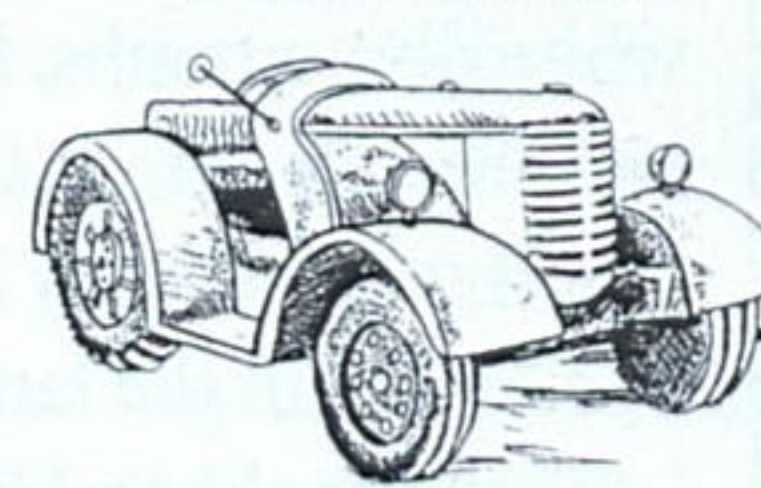
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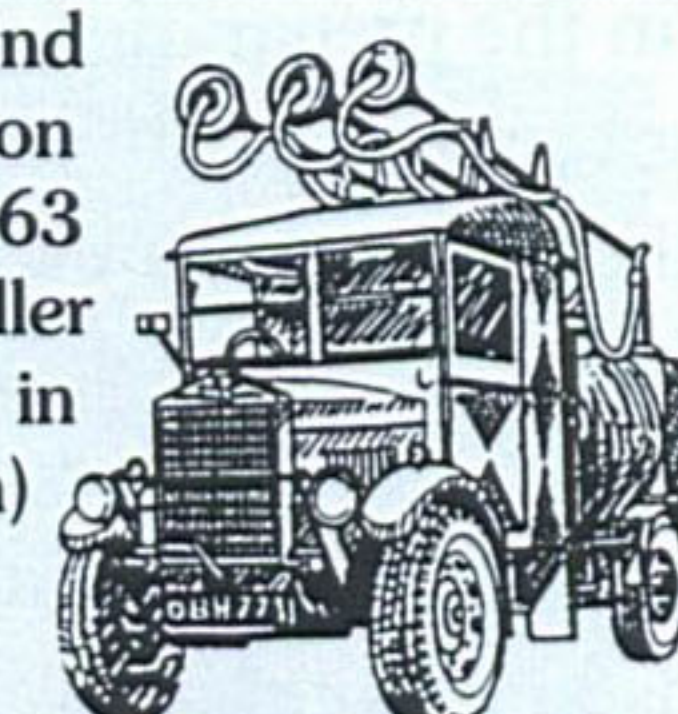
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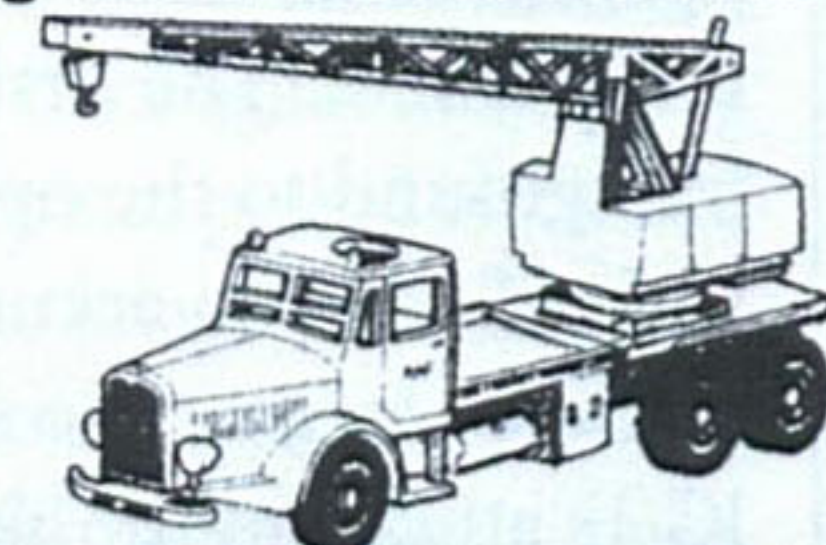
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book of the month

Bodenplatte - The Luftwaffe's Last Hope

by John Manrho & Ron Pütz

Price: £35.00 (\$54.95)

ISBN: 1-902109-40-6

Publisher: Hikoki Publications

Format: 210mm x 297mm, 304 Pages

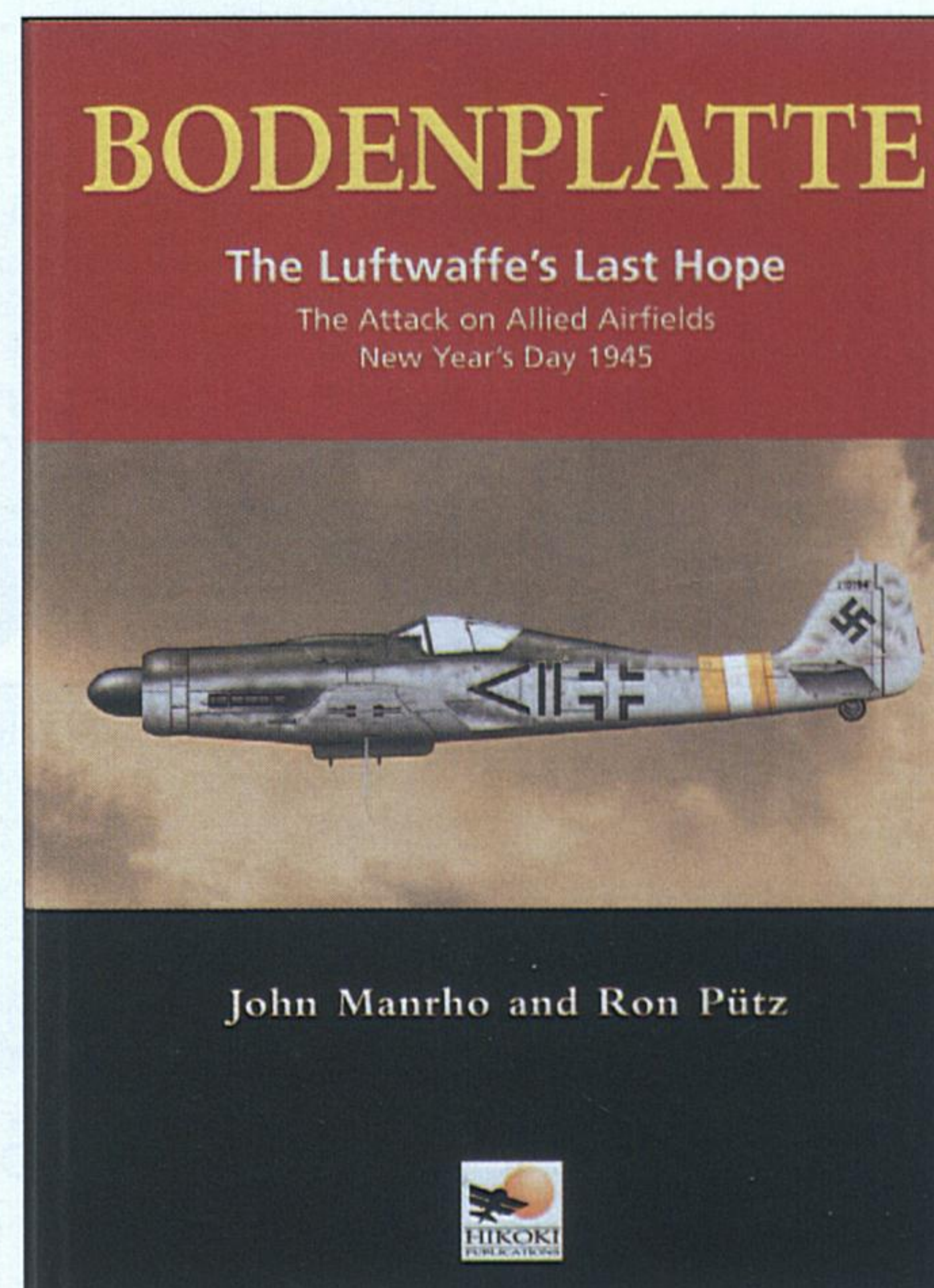
Cover: Hardback with Separate Dust Jacket

This is a detailed historical account of the Luftwaffe's attacks on Allied air bases in Europe on New Year's Day in 1945. The two authors are well versed in researching this subject and the title combines tactical data with historical records from the squadrons involved as well as personal accounts from many of the pilots and ground crew on both sides. The narrative has been broken down to deal with either specific stages in the preparation and operation, or to look at a group of squadrons' involvement. The first of these chapters looks at the background to the operation and the role taken by pathfinders to accurately plot the location of each intended target. The second chapter deals with JG 1's attack on the airfields in Belgium. The subsequent chapters deal with each squadron and

its actions against targets like St. Trond, Eindhoven and Le Culot. Specific actions like the almost total destruction of JG 11, or the problems experienced by the pathfinder aircraft are also covered in separate chapters. The book is completed with an assessment of the effects of the attack and an evaluation of the way in which the Luftwaffe carried it out. Overall the attack was costly, as of the 271 fighters lost, 231 pilots were killed and over 20 of these were experienced formation leaders. The Luftwaffe never recovered from this blow, and it really marks the last big operational sortie that it undertook in WWII.

This is a stunning book, well up to the high standard we expect from Hikoki. It is packed full of technical accounts and information as well as personal accounts and a mass of period black and white photographs. Many of the latter have never been seen before and for the modeller it has to be said that if you have any interest in Allied or Luftwaffe operations in the latter stages of WWII it is a 'must'.

Our thanks to Hikoki Publications for the review sample.



bookshelf

PZL P.24A-G

by Andrzej Glass

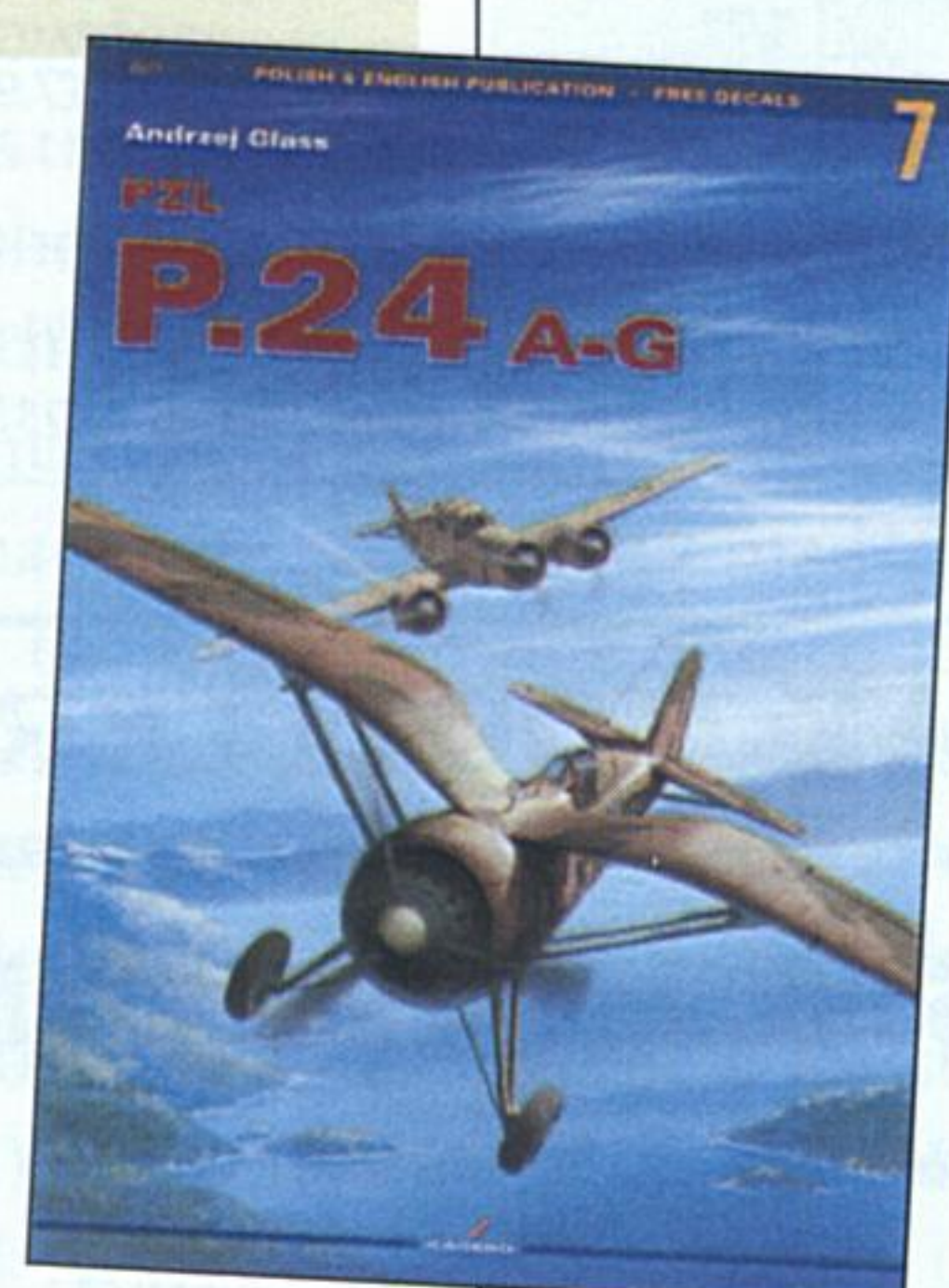
Price: £TBA

ISBN: 83-89088-33-9

Publisher: Kagero

Format: 210mm x 297mm, 80 Pages

Cover: Laminated Card



This is the latest title from Kagero in their now well established series of titles on specific aircraft types. The narrative is split half-and-half on each page between Polish and English. All the photograph captions are also in both languages. This narrative deals with the design,

development and service use of the P.24 and this is coupled with a mass of period black and white photographs. The narrative does include details of the operational use of the type in the various nations that operated it, as the P.24 was never actually used operationally in the country it was built. There is a technical description of the P.24 series about mid-title that is packed with detail shots of the

structure and equipment of the type, all of which are just what modellers are after. There is a comprehensive set of 1/48th scale plans of each P.24 version plus some very large scale drawings of the engine and the cockpit. This is followed by scale drawings of such things as propellers, canopy, the wing support fairings and even armament layout. The final section includes those very useful profiles that are highlighted to show the changes between sub-versions, which is again ideal for the modeller.

I do not think you can fault this one, it is an excellent title on a type that is very popular of late with the new Mirage kit. Kagero have reached and in many cases surpassed the older AJ Press series and we all know how popular they were with modellers! Highly recommended to all.

My thanks to Kagero for the review sample.

Messerschmitt Bf 109G

by Robert Peczkowski

Price: £9.99

ISBN: 83-916327-7-6

Publisher: Mushroom Model Publications

Format: 165mm x 240mm, 120 Pages

Cover: Laminated Card



This is the latest 'special' from Mushroom Monthly in their 'yellow series'. It is in the same format as the previous one on Spitfire Mk V that we reviewed in the April edition (Vol 10 Iss 4). All the text etc is in English and the title combines this with a large number of period black and white photographs, colour photographs of preserved examples and scale plans and diagrams. The coverage is not offered in a historical form, this is just a detailed version-by-version list of the G series coupled with lots of detail images and period extracts from the flight manuals etc. The coverage is total with G-1 through to G-14 covered and within each there is specific coverage dealing with field and factory modifications as well as production

block numbers and other items like armament and camera equipment. Most main versions are also supported with scale plans of the type. These variant sections are then followed by ones that cover a certain area of the airframe by using photographs of preserved airframes around the world. These deal with the fuselage, wing, tail, cockpit, engine, armament and undercarriage. The remaining twenty-six pages offer colour side profiles of various machines, with two views per page.

This is a very useful reference and it can be recommended to all fans of the Bf 109G series.

Our thanks to Mushroom Model Publications for the review sample. UK/European modellers can obtain this title from the publisher while North American modellers can get copies from MMD and Australian modellers can purchase a copy from Platypus Publications.

North American F-86 Sabre

by Stewart Wilson

Price: £9.99

ISBN: 18-7672-205-3

Publisher: Notebook Publications

Format: 175mm x 250mm, 64 Pages

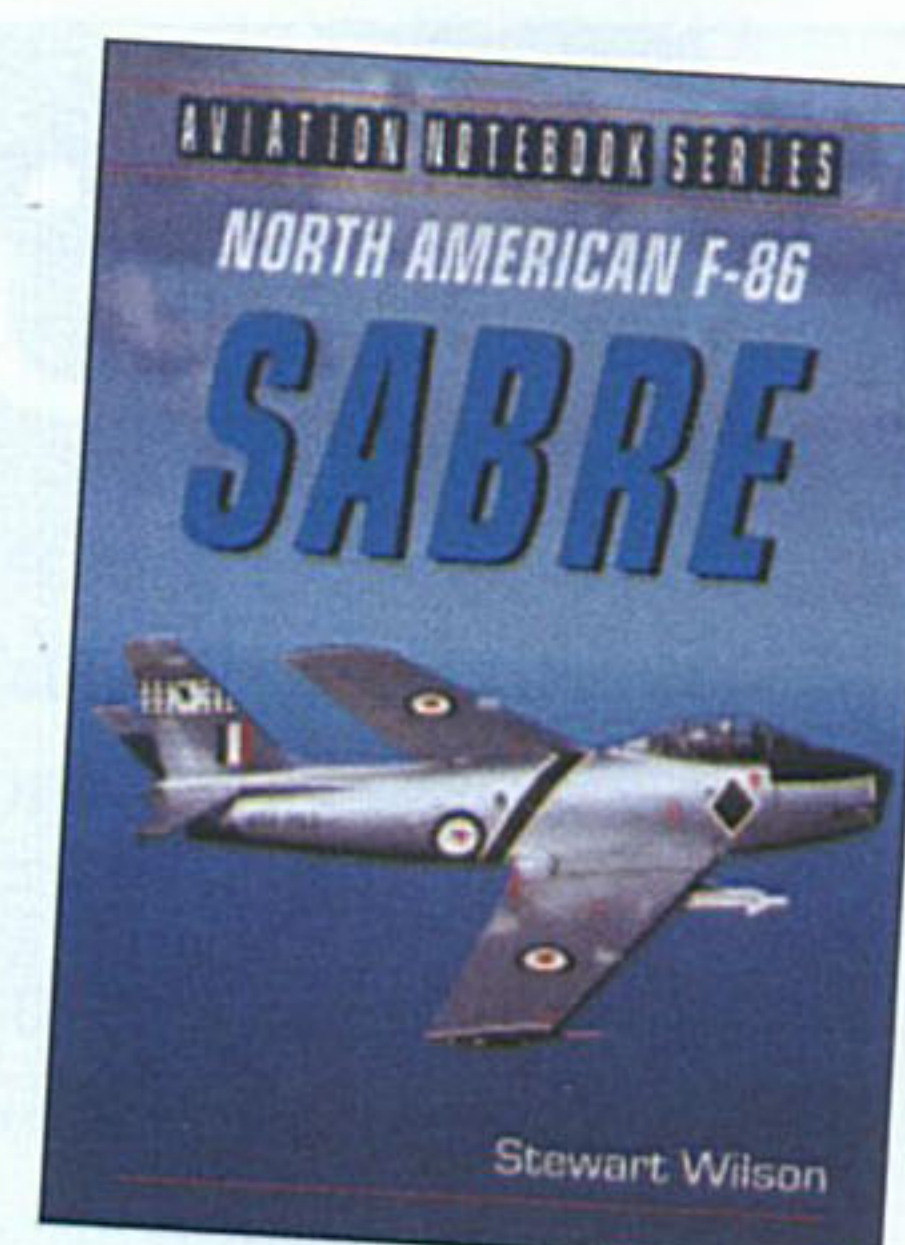
Cover: Laminated Card

Some of you may remember the Notebook series, as we covered some of the original ones a number of years ago. Initially our assessment was not that positive of the series, but this latest

addition to it seems to indicate a vast improvement over what came before.

Basically this series takes a very concise look at a certain subject, in this case the F-86, and deals with each variant and each sub-variant or production batch for each. The great improvement over the previous titles in this series is that in this one not only is there narrative detailing the changes but a very useful series of side profiles have been included to highlight the changes in each

version. Both US and Canadian-built versions of the F-86 are covered as well as CAC machines and there is even a section on the FJ Fury. Of course, the various wing profiles of the F-86 are also covered, and once again those useful little diagrams are included. The final section is a list of all the nations that



operated the Sabre as well as a complete list of serial number allocation per variant.

This is an excellent title, vastly improved over the previous ones and of great use to the modeller. It clears up most questions you may have about the subject and gives you a clear indication of what each version looked like. It is therefore highly recommended to all.

Aircraft Aces - I

by Marek J. Murawski

Price: £TBA

ISBN: 83-89088-34-7

Publisher: Kagero

Format: 170mm x 240mm, 28 Pages

Cover: Laminated Card

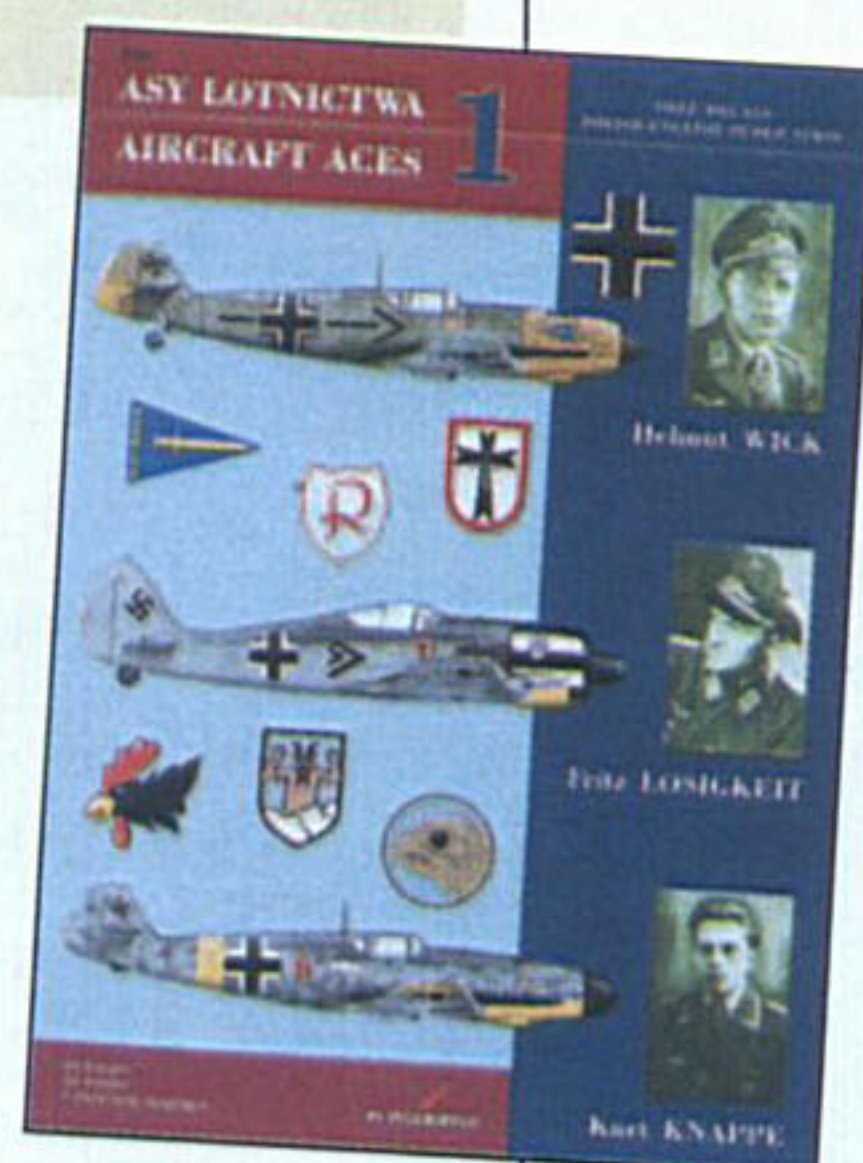
This is the first in yet another new series from Kagero. The series looks as if it is going to be specials on specific pilots and their machines. This first edition deals with the aircraft of Helmut Wick, Fritz Losigkeit and Kurt Knappe. The narrative is split 50/50 on each page between Polish and English, with all photo captions also in both languages. This narrative charts the life story of each pilot and this is coupled

with period black and white photographs of them and their machines plus colour profiles of certain aircraft they flew. These aircraft are offered as

options on the decal sheet that is included with the book and it is nice to see that this offers 1/32nd, 1/48th and 1/72nd scale versions.

This is an excellent little title from Kagero, which combines their now-standard decal sheet with a neat and concise book that can be viewed as a much expanded set of instructions. I am sure the series will go down well

with modellers and this first one can therefore be recommended to all Luftwaffe fans. Our thanks to Kagero for the review sample.



Fiat G.50

by Nicola Malizia

Price: £TBA (€17.50)

ISBN: 88-7565-002-0

Publisher: IBN

Format: 165mm x 240mm, 175 Pages

Cover: Laminated Card

This is the latest title from Italian publisher IBN and comes in the usual format with narrative text and photo captions offered in both Italian and English. The title is split into four main sections. The first deals with the development of the G.50, the second its operational service with 155° Gruppo in North Africa, the third is a technical description and the final section is all about the G.50 in model form. The first section takes up fifty-six pages and is packed full of very useful black and white and colour photographs. The second section takes a more detailed look at the use in operational service, with specific highlighting of notable aces like Sergente Maggiore Pilota Aldo Buvoli. There are also a number of colour profiles of various machines included in this section of the book. The

third section takes a look at the G.50 from a technical standpoint, although this is only a couple of pages and most of that is taken up with technical data etc. The final section is about the type in model form, although once again the contents of this is thin on the ground and is mainly a listing of those kits produced so far. This section does

include some very useful illustrations from the flight manual for the G.50 and these alone make the title worth having as interior and detail images of the type are very thin on the ground.

Overall this is another excellent book, well up to IBN's usual high standard. It is good to see the G.50 covered and although Ali

D'Italia have already covered the type, the manual extracts and mass of photos in this book make this one still well worth having. If you like the G.50, Italian subjects as a whole or have the AML (1/72nd) or Sector/Hasegawa (1/48th) kits in your pending pile then this book is for you.

Our thanks to IBN for the review sample. UK customers can obtain this title from Midland Counties, in North America from Pacific Coast Models, in Australia from Aeroworks and in Japan via Nishiyama Yosho Co., Ltd.



Macchi MC.200 Saetta Pt 2

by Maurizio Di Terlizzi

Price: £TBA (€15.90)

ISBN: 88-7565-005-5

Publisher: IBN

Format: 210mm x 297mm, 64 Pages

Cover: Laminated Card

This is the second part to IBN's coverage of the MC.200, as some of you may recall part one which we covered way back in Vol.7 Iss 12 (December 2001). The narrative throughout is in English and Italian, with them split 50/50 on each page. Photo captions are also in both languages. This is not really a follow-on title from Part 1, more of a case of revisiting the subject. The narrative charts the operational use of the type and this is backed up with loads of period black and white images. These are all nice and big and there are even a couple in colour. By page 29 though you are into the modelling bit, which is what this title is all about, as it deals with the Pacific Coast kit of the

type recently released. It is quite a nice detailed build of this kit which is supported with photographs in and around the example restored in Italy by Macchi in the 1990s and now on display at the USAF Museum. The penultimate

section deals with the camouflage and markings, and once again this has lots more period black and white images. The final section is four pages of detail images and diagrams from the flight manual, two pages of scale plans and technical data, production batches and colour notes.

This is an excellent title, well worth adding to your collection if you like WWII Italian aircraft and a real 'must' if you have the Pacific Coast model of this type to build.

Our thanks to IBN for the review sample. UK customers can obtain this title from Midland Counties, in North America from Pacific Coast Models, in Australia from Aeroworks and in Japan via Nishiyama Yosho Co., Ltd.



Nakajima B6N Tenzan

by Leszek A. Wieliczko

Price: £TBA

ISBN: 83-89088-36-3

Publisher: Kagero

Format: 170mm x 240mm, 36 Pages

Cover: Laminated Card

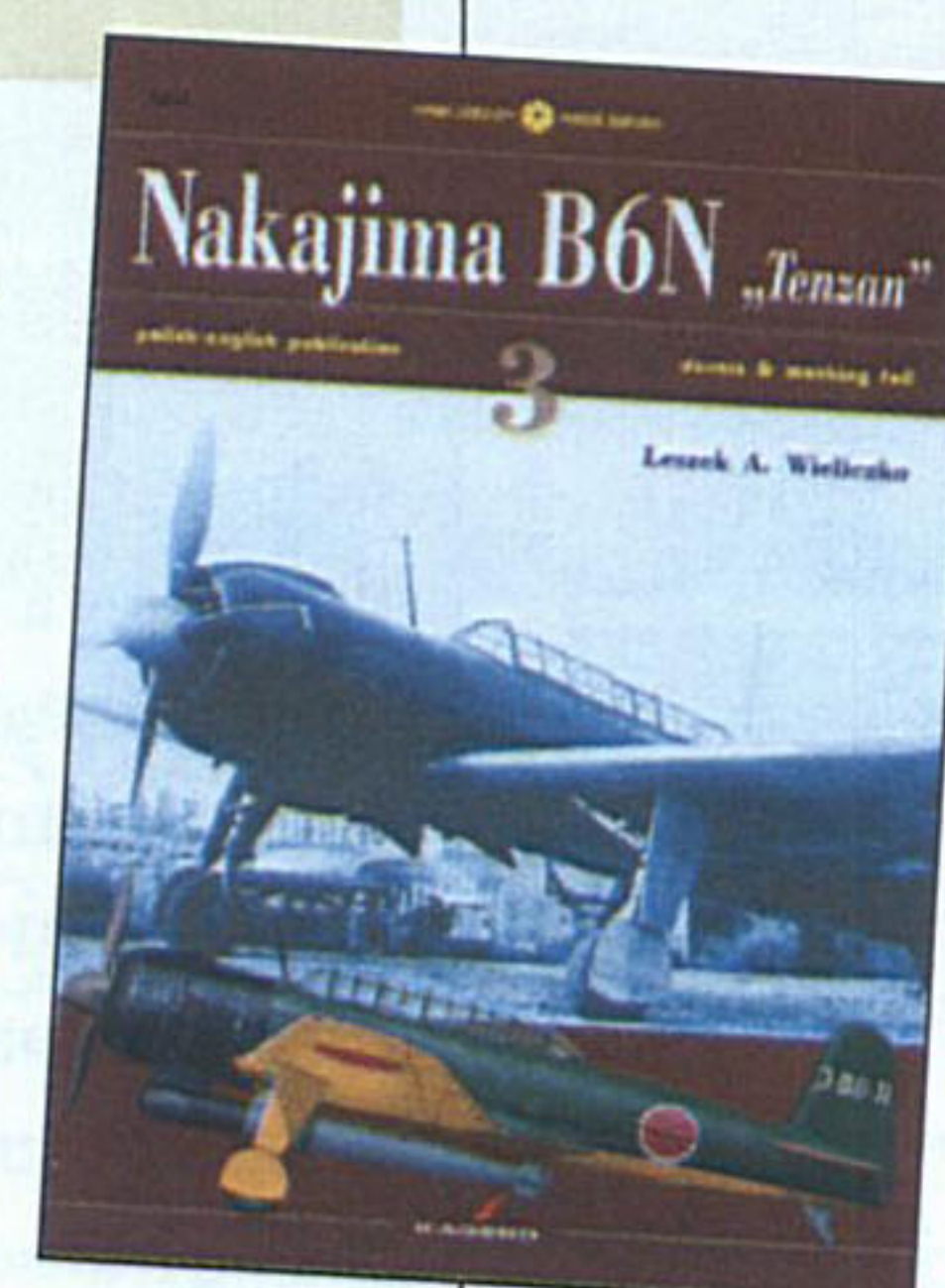
Not much has been written about the Tenzan, and that which has has mainly been in Japanese. This new title from Kagero is certainly welcome therefore as you not only get the book, but there is the usual excellent decal sheet as well. The narrative is, as usual, split 50/50 on each page between Polish and English, with all photo captions also in both languages. This narrative charts the design, development and service use of the type and this is coupled with a good number of period black and white photographs. There are colour profiles

of eight machines, all of which are offered as options on the decal sheet that is included in the book. All eight of these options are offered in both

1/72nd and 1/48th scale on the sheet, although there is only one set of national insignia in each scale.

As I have already said little has been written on this type, so I am sure many will find this book of interest. Having the Maru Mechanic title on this type does mean that this one may seem a lot less involved, but overall it is a nice concise, well written and well illustrated book about a lesser known Japanese type of WWII and you get the decals as a bonus, so I recommend it to all.

Our thanks to Kagero for the review sample.



Avro - The History of an Aircraft Company

by Harry Holmes

Price: £19.95

ISBN: 1-86126-651-0

Publisher: The Crowood Press

Format: 195mm x 250mm, 192 Pages

Cover: Hardback with Separate Dust Jacket

This is a brief historical account of Avro, the man who founded it and its aircraft. The bulk of the title is written, but there are numerous period photographs of both the aircraft and the men associated with the name Avro. The narrative charts the whole history of the company and starts with a look at the pioneer work of A.V. Roe. This is followed with details of his early designs

before moving off to look at those types that will probably be more familiar to most like the 500, 503 and world-famous 504 series. WWI and immediate post-war developments and production are all covered, as well as details of the firm's forced move to what was to be called Woodford. Chapter six takes a look at Bert Hinkler and his Avian. Chapter eight looks at the changes in the mid-1920s when Avro was purchased by Armstrong Siddeley. Chapter eight deals with the highly successful Tutor series and chapter nine looks at the



birth, development and worldwide success of the Anson. By this time war clouds were gathering in Europe and Avro were able to build a £1 million new facility at Chadderton and it was here that the Manchester was designed, built and tested. Chapter eleven deals with the most famous Avro of them all, the Lancaster, as well as its derivatives the York and Lincoln. This is followed by a chapter on the Tutor, in which unfortunately Chief Designer Roy Chadwick was to be killed on the

23rd August 1947. Chapter thirteen looks at both the 707 testbeds and the Vulcan, as well as Avro's work on the Athena, Shackleton, Tudor and even the 720 mixed-powerplant project. Chapter fourteen is entitled 'The last Avro' and it deals with the 748. The final chapter takes a quick look at Avro Canada and its work on the CF-100 and CF-105.

This is an excellent title, more of a historical account than a true data source. The text is easy to read and well constructed and the photographs are all nice and clear as I suspect they are all from original negatives instead of second or third generation copies.

Our thanks to The Crowood Press for the review sample.

Kurt Tank's Photo Album 1940-43

by R. Powell & B. Ketley

Price: £9.99

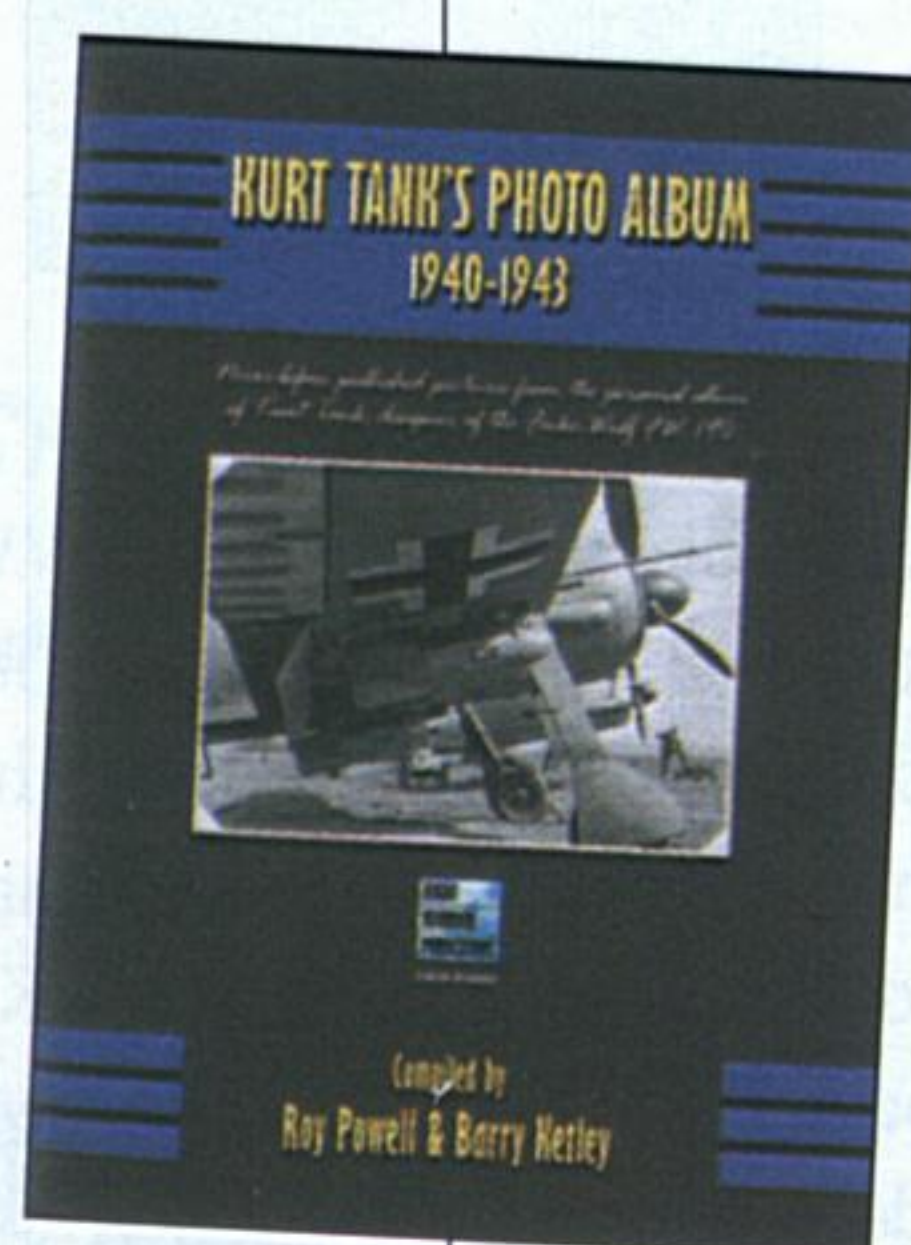
ISBN: 0-9545605-3-1

Publisher: Flight Recorder Publications

Format: 210mm x 297mm, 68 Pages

Cover: Laminated Card

This title makes you think of loads of images of the Fw 190, but in truth it is a much more varied collection of images. The photo album on which this title is based was passed to the authors in 1982 and is probably a relic of the material brought back from Bremen by the Allies in the immediate post-war period. As it held no technical data of interest it possibly got handed around over the intervening years and Roy Powell is the current (and very lucky) owner of it. The images have been organised, I suspect, as they are in the album, so should be in fairly chronological order. These images have all been produced nice and big, with three to a page



coupled with extensive captions. They range from very personal images of places and people Tank met and knew, to more general views as he travelled around during WWII. This title only deals with the 1940 to 1943 period, so there is much on the fall of France as well as development of the Fw 189 and Fw 190 as well as oddities like the Fw 191 and Berlin B9. Tank was associated with the latter due to his role of President of the German Academy of Aeronautical Research. These images of the B9 are certainly the clearest I have ever seen of the type, so are very welcome.

Overall this is an interesting book, that allows us all to see the images taken by Tank during the early war period. It would be nice to think that a later album exists to fill the 1943 to 1945 period, but that may be too much to hope for!

My thanks to Flight Recorder Publications for the review sample.

Supermarine Fighter Aircraft

by Victor F. Bingham

Price: £19.95

ISBN: 1-86126-649-9

Publisher: The Crowood Press

Format: 195mm x 250mm, 160 Pages

Cover: Hardback with Separate Dust Jacket

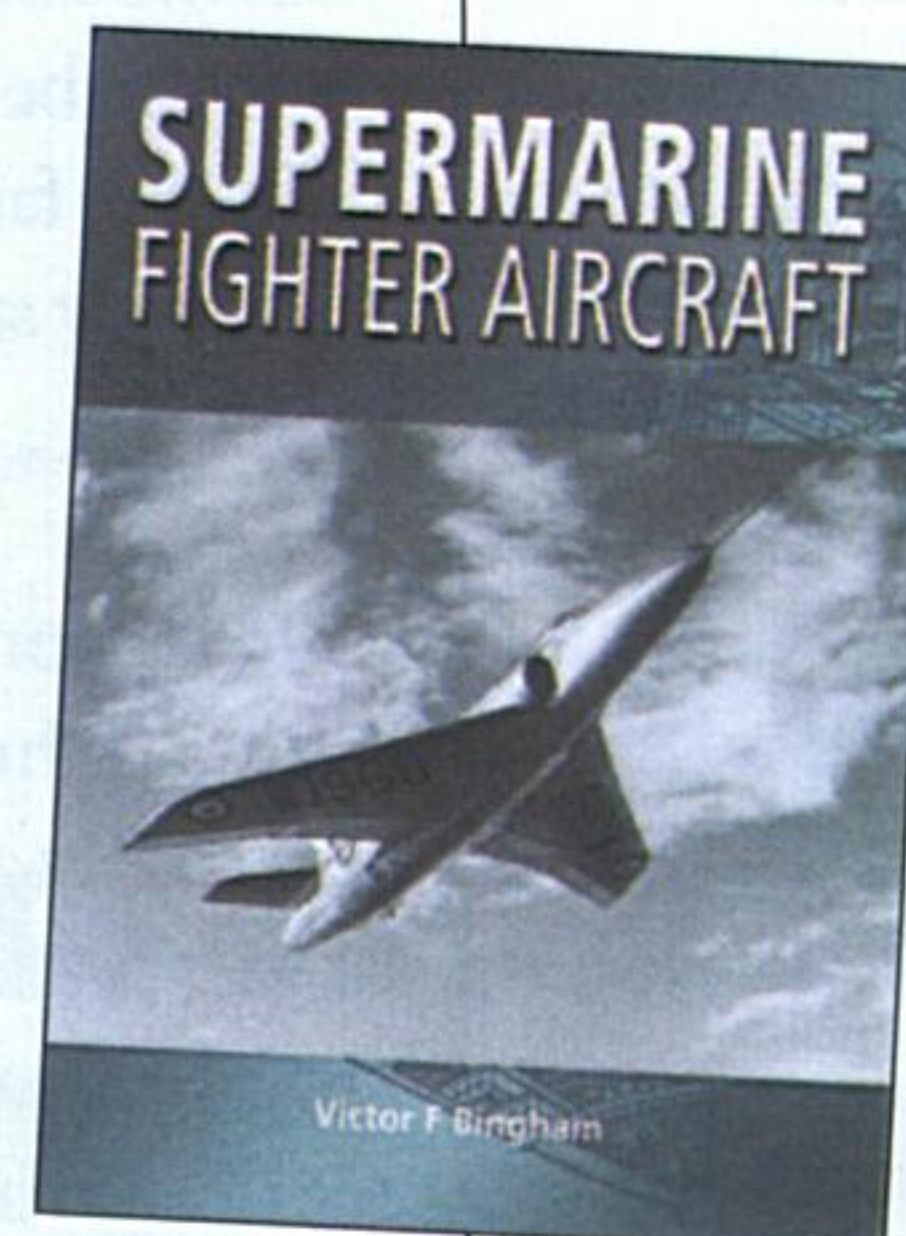
Whenever you think of Supermarine most will envisage the Spitfire and it has to be said that most of this title is about the type. That said it does add a few twists to the tail and has, at what at first seems, and 'odd' mix of text, photos and diagrams. These latter items include detail images from the various aircraft flight manuals, coupled with engine diagrams for the likes of the Merlin and a mix of cutaways. At first this struck me as all disjointed, but you can gain quite a lot of information from all this material and it does not detract from the narrative. All the way up to page 93 you will either be reading about the Spitfire or the Seafire/Seafang, so as you can see it gets the lion's share. After this point

though you get a very useful section on the Attacker and once again there are some nice manual extracts, engine diagrams and cutaways. This is followed by a chapter dealing with the Type 510, 517 and 535, although this section is just supported with a few images. The next chapter deals with the Swift, what else, and there are in fact two chapters on the type here, as the first looks at the development of the

Swift up to the F Mk 3, while the second chapter looks at the FR Mk 5 through to F Mk 7. The final chapter looks at development of the 508 and 529 and of course the Scimitar.

This is a nice little title, not packed with anything really 'new' about any of the subjects. The mix of drawings and photos works well, it is just a shame the author (or publisher) did not carry this on into the sections of the Swift and Scimitar as Spitfire/Seafire technical stuff is two a penny.

Our thanks to The Crowood Press for the review sample.



Spad VII C.1

by T. Gronczewski & S.W. Fleischer

Price: £TBA

ISBN: 83-89532-03-4

Publisher: Aviatik Productions

Format: 210mm x 297mm, 166 Pages

Cover: Laminated Card

This is the first in a new series from this publisher entitled 'Aviatik Vintage Aircraft'. It is offered with both English and Polish text, not split on each page, the English text is first with the Polish section at the back. The narrative starts with a look at the Spad VII as a whole, taking particular interest in how certain areas of the design were changed. This is

followed by a section that takes a very detailed look at the construction and equipment of the type and in this section there are lots of detail images in and around the airframe. The next section deals with the operational service type's, taking a look at specific battles in which the type was involved as well as those squadrons that flew it. The next section looks at the further development of the type as well as taking a detailed look country by country at those who operated the



Spad during both WWI and in the post-war period. The final narrative section deals with camouflage and markings and once again this is done by each nation that operated the type. By this stage in the title you are 88 pages in and it is at this stage that the book include a very useful section indeed. At this point there are 8 pages of scale plans of the Spad in all versions for each nation. These are followed by similar scale sets of drawings showing the internal structure of those machines, with details of bulkhead,

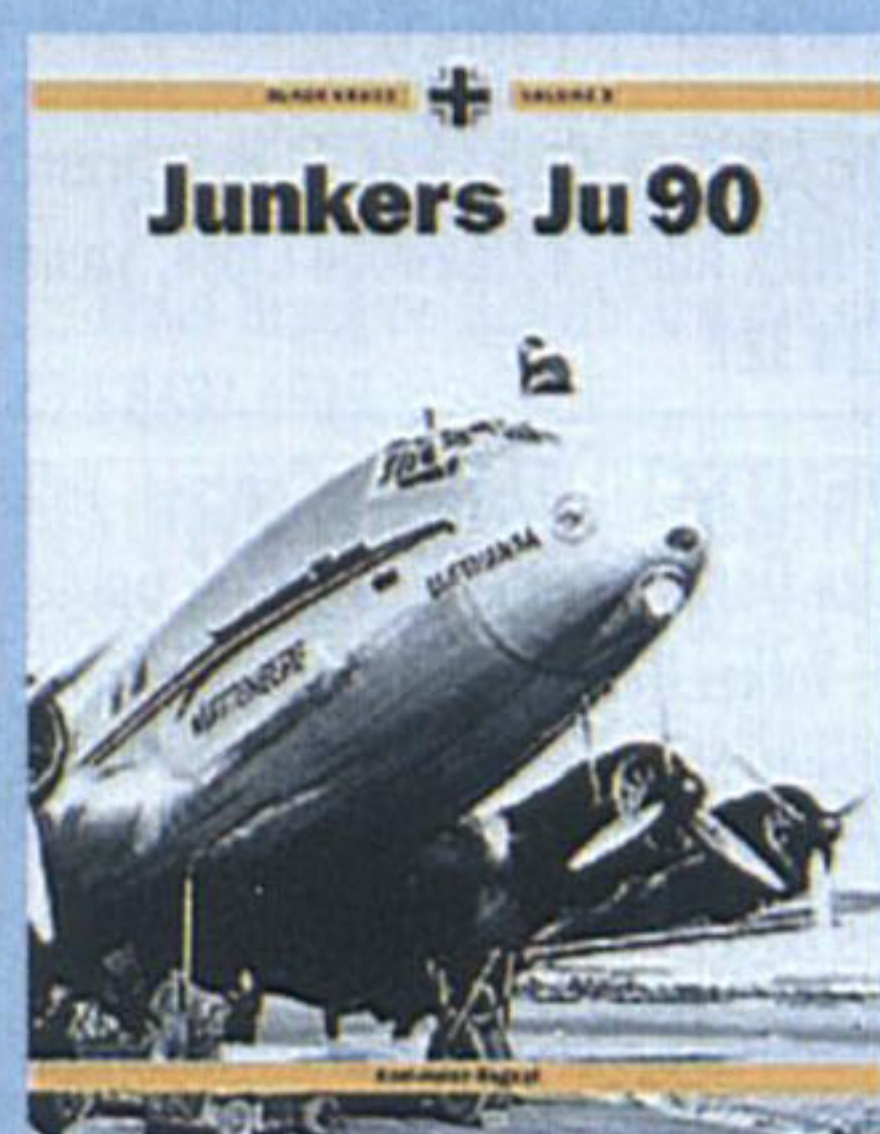
armament and even all the various propellers fitted! Much detail about the various styles of engine cowling fitted is included in this section, which is very useful to the modeller. The next six pages are full of 1/72nd scale colour profiles, followed by two pages of colour 'walk around' images of a preserved Spad VII C.1. The remainder of the title is the Polish text.

This is an excellent title and perfect for the modeller. It is well written and heavily illustrated, and covers a subject that has not had that much specific coverage elsewhere. It can therefore be highly recommended to all WWI aircraft fans.

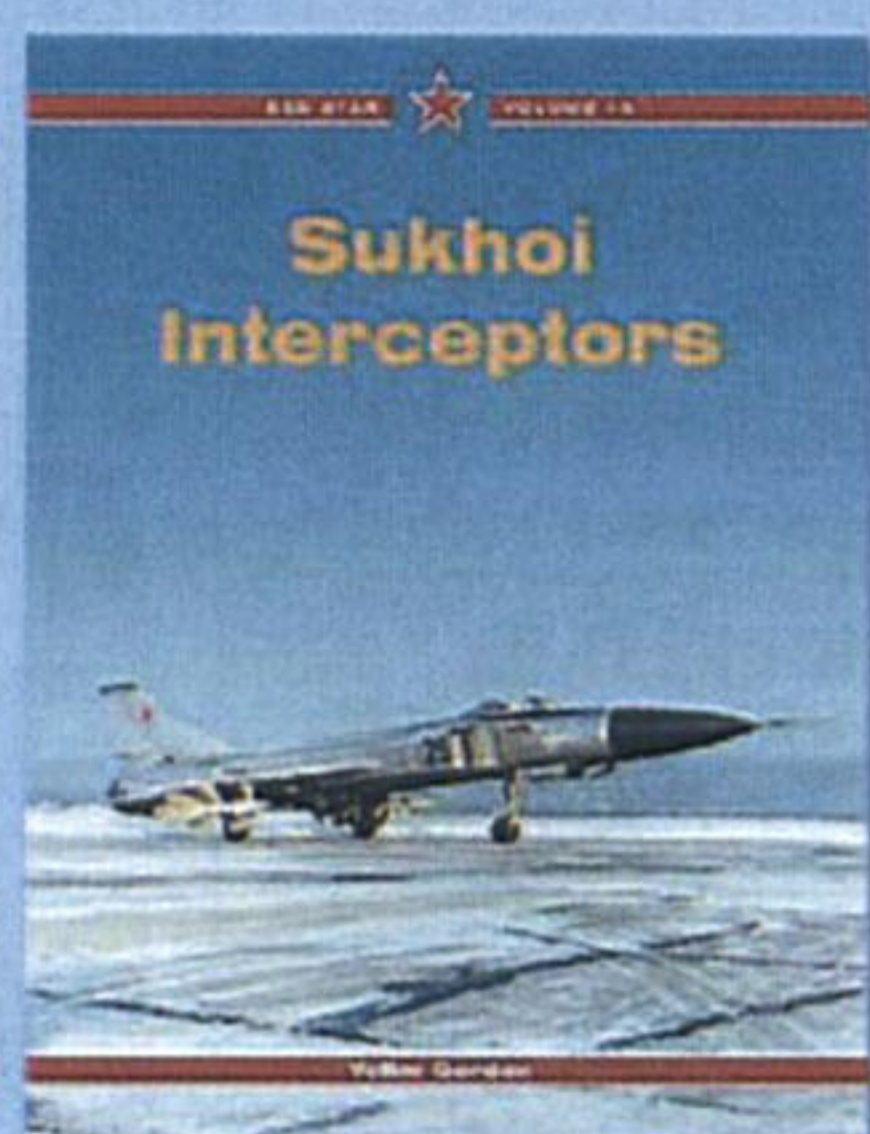
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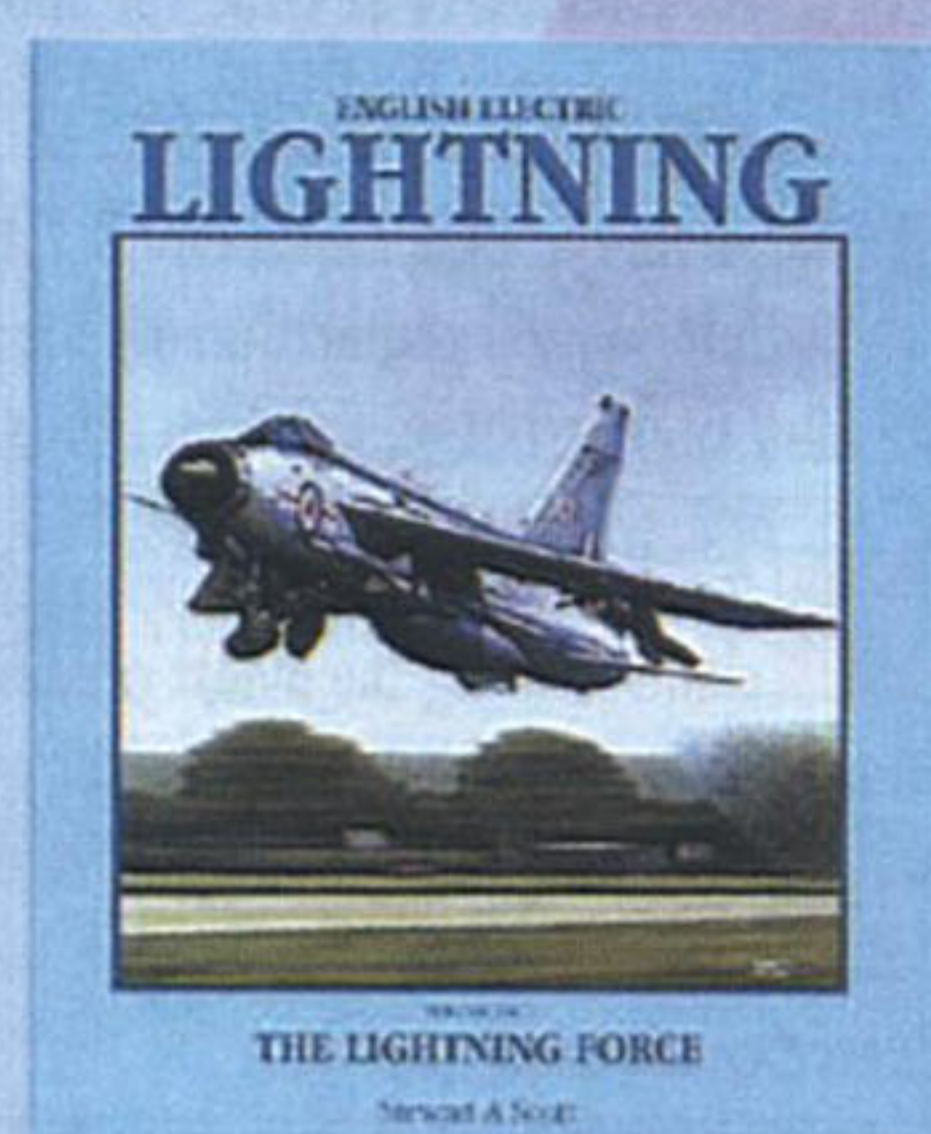
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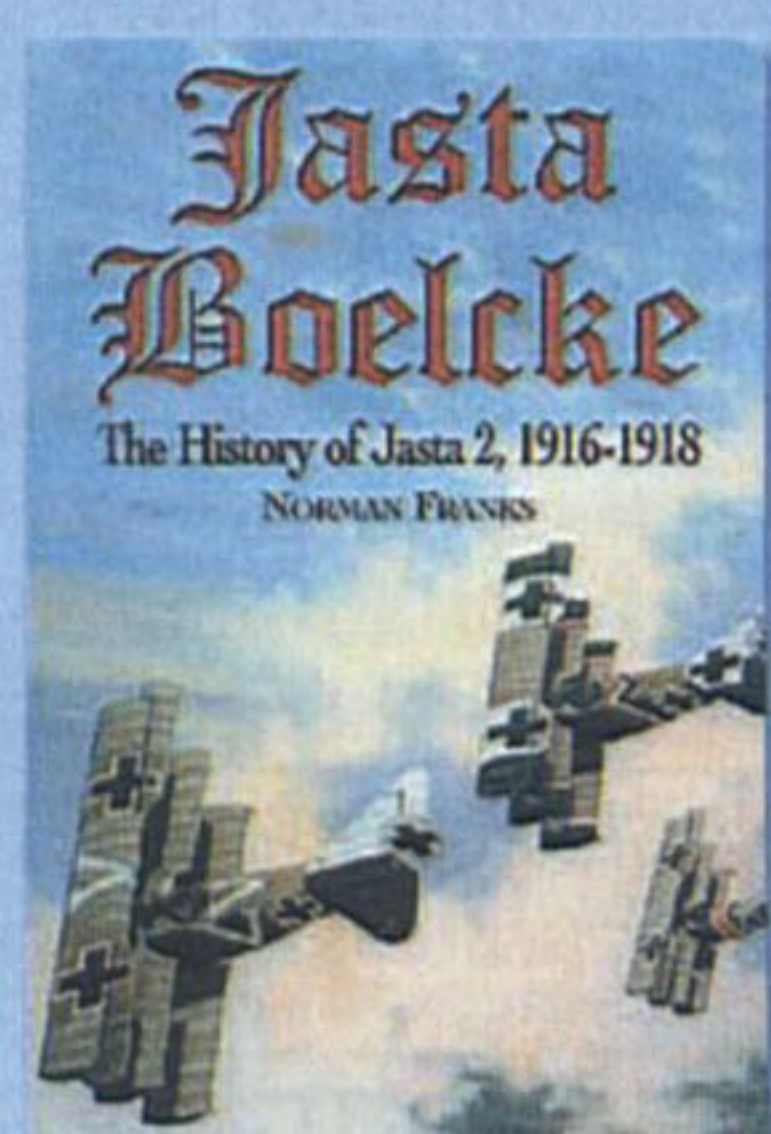
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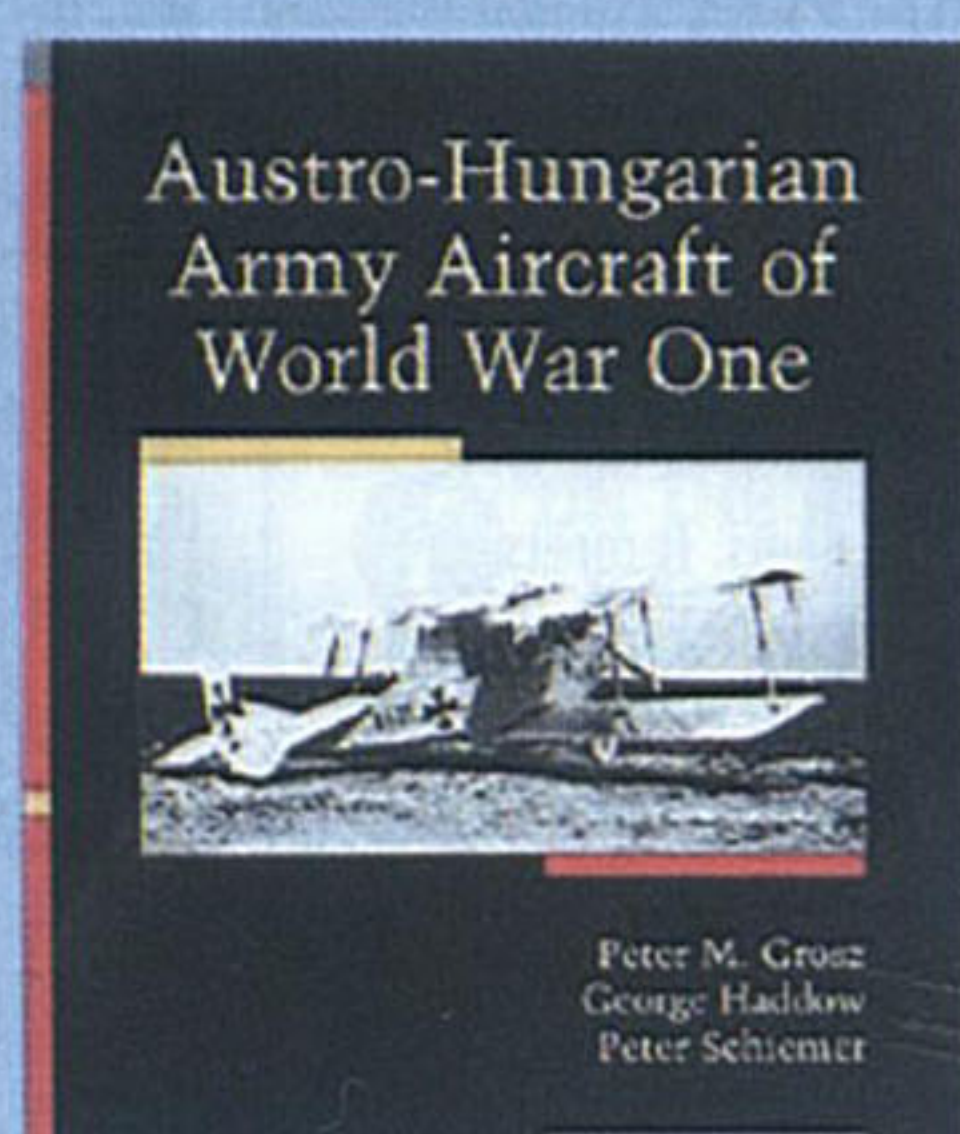
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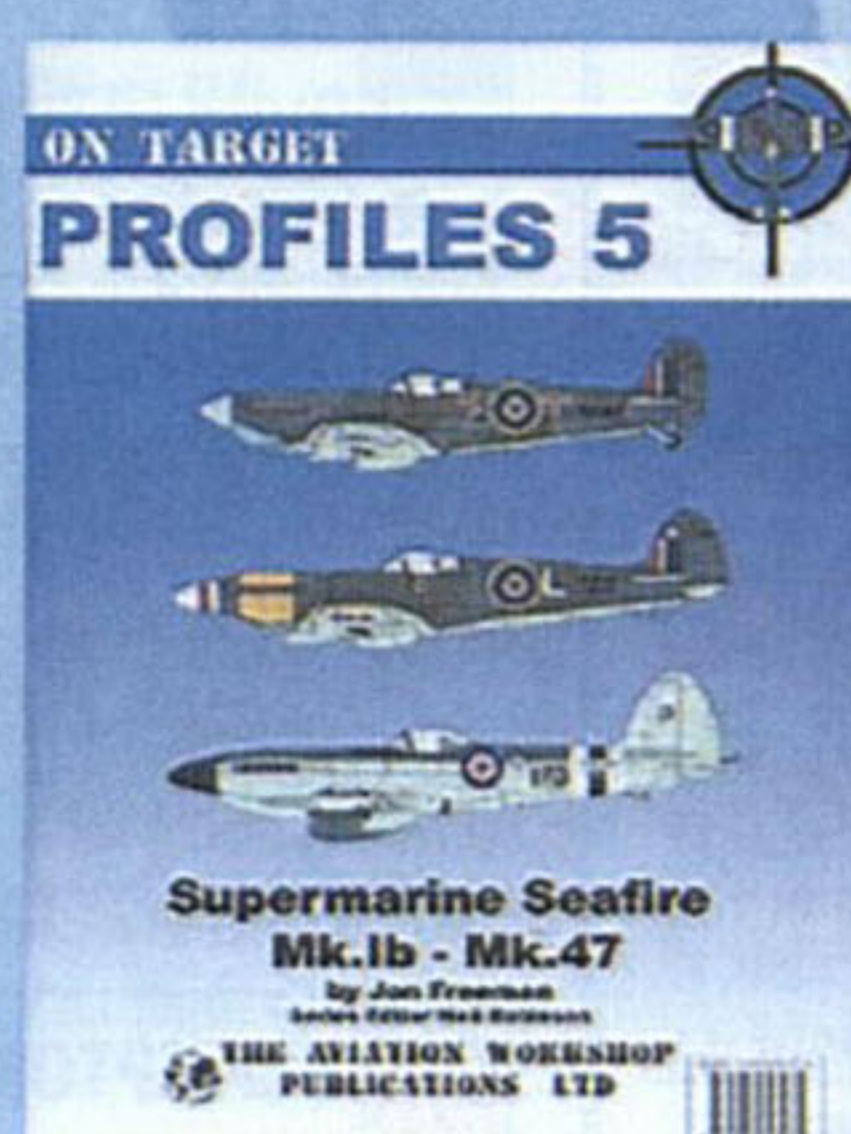
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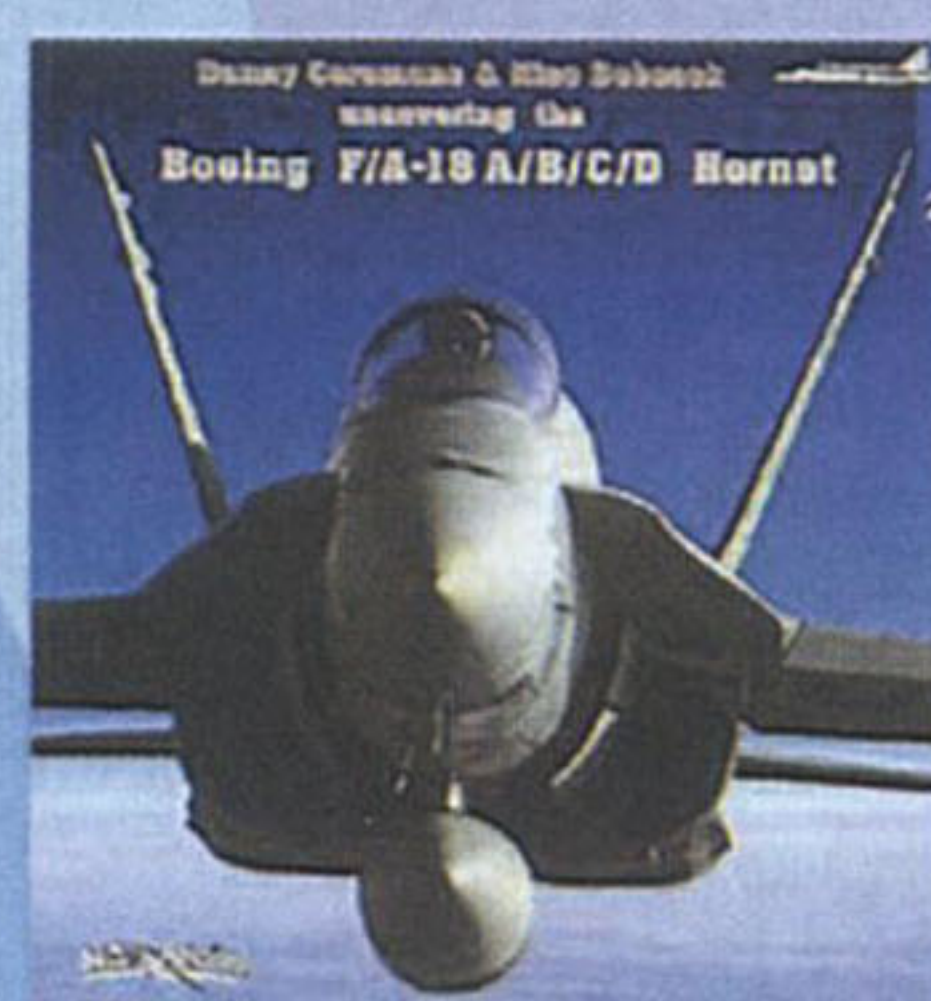
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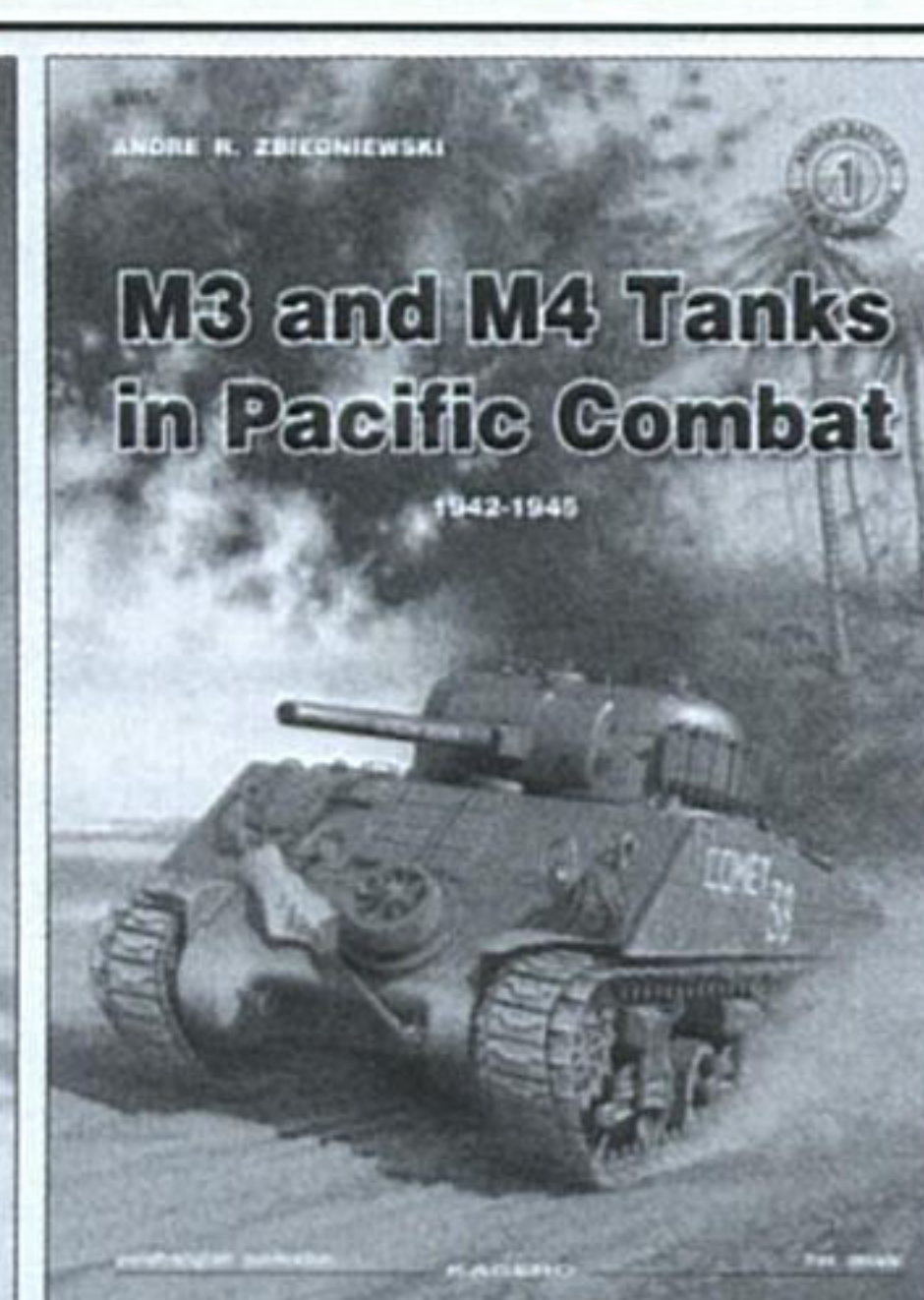


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i AAM/IPMS PORTUGAL. Please contact Antonio Neves Santos - R. Prof. Camilo Oliverira, 86A - 4420 GONDOMAR or Tel: 02 4540525.

THE ABERDEEN MODELLERS SOCIETY. Contact David Robertson, 27 Howes Drive, Aberdeen. Tel: 01224 690895.

ABINGDON IPMS. For information contact Simon Fisher Tel: 01993 774034 (not after 9pm).

AIRFIX COLLECTOR'S CLUB. For more information contact Jeremy Brook, 29 Elley Green, Neston, Corsham, Wiltshire. SN13 9TX.

ASVC Wombourne, Nr Wolverhampton. We lay claim to being the oldest established model club in the country, having been going for over 25 years! So we must be doing something right. Meeting 1st Saturday of the month at Allen Hall. Details from John Turner on 01384 78179.

i IPMS AUSTRIA More information on our web site: www.ipms.at or contact Peter Havel, Maerzstrasse 127/46, A-1140 Wien, hape.ipms@gmx.at or Rainer Selisko, seli.ipms@gmx.at Fax +431 586 6215. Monthly meetings in Vienna, quarterly magazine Panorama, IPMS ScaleShop.

AVON SCALE MODEL SOCIETY - a small friendly modelling club meets on the 3rd Thursday of each month, at the Longwell Green Community Centre on the outskirts of Bristol. We cater for all types of modelling subjects, so if you think you would benefit from joining us, come along or for information phone: Ian Bryant on 0117 9324053 or Ray Hackney on 0117 9569777.

THE ASSOCIATION OF LONDON MODELLERS (inc. IPMS London). Meet between 7-9.30pm on the last Wednesday of the month in the Camera Club, St. Brides Institute, Bride Lane, EC4. Contact Brian Lay 07813 908 938 or email BRIAN@asofmod.freemove.co.uk

i AUSTRALIAN PLASTIC MODELLERS ASSOCIATION PO Box 51, Strathfield NSW 2135, Australia. Web site WWW.apma.org.au. Meet at Ryde City Bowling Club Auditorium, Blaxland Road, Ryde. Contact: Tel:(02) 98083215 email: sljenkins@apma.org.au

AVRO LANCASHIRE IPMS. Contact David Thow on 01772 671368 or email idthow@tesco.net

IPMS AVON meets at the Rotunda Club (Avon Suite) on the third Wednesday of the month at 20.00hrs. For more details contact Phil, Tel/Fax: 01454 850119, Email: ipmsavon@aol.com

i IPMS BELGIUM. c/o Filip Fraeyman, Sint Janstraat 4, B-8650 Moorsele, Belgium. Email: IPMSBelgium@pandora.be or visit www.ipms.be

BIRMINGHAM IPMS. For more details call 0121 550 0515.

i BAY MODELLERS CLUB, Bay of Plenty, New Zealand. Contact Peter Cook on (NZ) 07-575-6517 or Email FI-SH@extra.co.nz

BANBURY SCALE MODEL CLUB. Contact Martin Aris on 01295 710150.

BARNET IPMS. Contact Pete Stern (Secretary) on 020 8449 7854.

UMS (UNIVERSITY MODELLING SOCIETY) BIRMINGHAM meets every Thursday at Centre 13 Community Centre, School Road, Moseley, Birmingham.

BLACKPOOL MODELLERS. Contact Darren Elliott on Tel: 01253 317265 or E-mail: darren@miramar55.freemove.co.uk

BOGNOR REGIS MILITARY Modelling and Wargaming Society is based at the West Meads Community Centre, Bognor Regis. It meets on Monday evenings from 7.30 and caters for all areas of military modelling. There is a very active wargames section catering for a wide range of campaigns. Pay us a visit or call 01243 824542 or 01243 814549

BRAMPTON SCALE MODEL CLUB (incorporating IPMS Brampton). Contact, Sam Bratby, 39 Ermine Way, Sawtry, Huntingdon, Cambs. PE17 5UQ. Tel: 01487 830689.

IPMS BOLTON. For more details contact David Swift on 01204 695375 or Ray Ashworth on 01204 669770 or e-mail the club at: ipms.bolton@btopenworld.com

BRIDLINGTON & WOLDS SCALE MODEL CLUB meets at the Parade Public House, Bridlington on the second Monday of each month. For more information contact Kevin Dolman 01377 255594 or Adrian Morris 01723 375962

IPMS (CANADA) LONDON. Contact Kerry Traynor on 1-519-453-4818.

i IPMS CAPE PENINSULA (SOUTH AFRICA), Cape Scale Modellers Club. Contact Marc Cilliers Tel: 021 671 5595 or 083 444 9471.

i IPMS CAN-UKS representing IPMS Canada in the UK. We meet in Nuneaton on the third Saturday of each month from 19:00. For more details contact Andy Blinks (T: 0116 284 9959) or Andy Smedley (T: 024 7632 7962).

CHELMSFORD AND ESSEX SCALE Modelling Club. Due to unforeseen circumstances we have had to change venue. As from the first Thursday (6th) of November we will be meeting at The Horse and Groom Galleywood Common near Chelmsford, where we will have our own private room.

i CHAPITRE REAL COTE (Montreal, Canada). For information contact Jean Marc Perreault. Tel: 450 659 5241 Email: jmarcp@megaweb.ca

CHILTERN SCALE MODEL CLUB. (incorporating IPMS Chiltern) meet first Wed. of every month at Shefford Memorial Hall. New members welcome. Contact John Chapman 01234 317763

THE CLACTON BRANCH of the IPMS. Contact Peter Terry on 01255 428653.

IPMS CLEVELAND. Contact: Mike Burns on 01642 592357 or Gary Stevenson on 01642 490589.

IPMS TYNESIDE meets at St. John's Church Hall, Newcastle-upon-Tyne the 1st & 3rd Monday of each month. Contact Rob Sullivan Tel: 01207 561971.

COVENTRY AND WARWICKS IPMS. For more details contact Carl Lewis, Midland Air Museum, Rowley Road, Coventry Airport, Bagington. CV8 3AZ.

CORNISH SCALE MODELLER'S SOCIETY. For more details contact Tim Rowley (Chairman); 45 Bodriggy St, Hayle, TR27 4ND Tel: 01736 757945 or Alan Jennings (Secretary) 5 Collygree Parc, Goldsithney, TR20 9LY. Tel: 01736 710033.

DERBY CITY MODEL CLUB. Contact Gavin (10am to 6pm Saturdays) on 01332 757873 (Tel/Fax) or Julian (evenings) on 01332 514193.

IPMS DERBY & DISTRICT. New branch secretary: Nick Allen, 8 Oakwood Close, Stenson Fields, Derby. DE24 3ET

i IPMS DEUTSCHLAND e.V. Contact: Volker Helms., Alte Dorfstrasse 26A, D-19065 Godern, Germany. E-mail: Volker.Helms@t-online.de. Home page: www.ipmsdeutschland.de.

EAST KENT MODEL CLUB meets in Ramsgate. For details contact Stu Davies on 01843 867404.

EAST MIDLANDS MODEL CLUB. Contact Gordon Upton on 01455 230952 (day) or 01455 878722 (evenings).

EAST NEUK MODELLING CLUB For more information contact Brian on 01334 655131 or Dave on 01334 652439.

EAST RIDING SCALE MODEL ASSOCIATION meets every second Monday in the month at Beverley. Anyone interested should contact either: Richard Alsop 01482 711300 or Tony Bolder 01482 566008

IPMS ESSEX/HARLOW. For details and an information sheet, please ring Steve Hubbard on 020 8514 3840 or 0860 228194.

i EASTERN SUBURBS SCALE MODEL CLUB (ESSMC), Box Hill, Vic, Australia. For more details contact Pete McKinnon, 61 + 3 9725 5480 or write to: 33 Clegg Ave, Croydon, Vic 3136, Australia.

FAMAS (Frog & Airfix Model Aircraft Society) Please note that this society's activities have temporarily ceased. Merv Hambling the founder states that the Sept/Oct 2003 edition (Vol.8/No.5) of their journal will be the penultimate one until some time after March 2007, when pressure of work and other commitments will have reduced to such an extent that he can once again relaunch the society. Everyone on the current mailing list will be recontacted once the society restarts. Anyone wanting to be added to this list, or any of you who are members and change address in the interim should contact Merv at 29 Ridge Way, Cromer, Norfolk. NR27 0HS. In the meantime anyone with an interest in Airfix products, can contact the Airfix Collectors' Club via Jeremy Brook, 29 Elley Green, Neston, Corsham, Wiltshire. SN13 9TX. Email: jezbrook@btinternet.com

IPMS FENLAND/SPALDING MODEL GROUP. Contact Bill Pickering on 01775 710465.

GLASGOW IPMS. Non-IPMS members welcome. Contact Bruce Smith on 0141 563 2098.

GLOUCESTER IPMS. Contact Jeff Brown, 123 Pleasant Way, Beeches Park, Cirencester. GL7 1BJ. Tel: 01285 659254.

GRANTHAM MODEL CLUB. Contact John Tinkler on 01476 870816 or Craig Gardiner on 01476 401483.

i IPMS GREECE (CORFU BRANCH) Contact 0030 661 41506 or Fax 0030 661 41114.

i GUERNSEY PLASTIC MODELLERS GROUP. Contact Dave Nash, 7 Pierre Percee Villa, Prince Albert Road, St Peter Port, Guernsey. GY1 1EZ. Tel: 01481 728186.

THE HARROW MODELLING SOCIETY. Contact Roger on 020 89976051 for more details or visit www.harrowmodellingsociety.co.uk

i HOBBY DEPOT MODELER CLUB Contact M. Fuller, 1524 Est Summer St., Hartford, WI 53027, USA.

IPMS HORNCHURCH. New Club Secretary: Dave Ryan, 36 The Lintons, Linton Road, Barking, Essex. IG11 8HS. Tel: 020 8594 4670.

ISCA SCALE PLASTIC MODEL CLUB - East Devon. Contact Mr K.Sweeting 10, Old Barn Close, Stokecanon, Exeter, Devon. EX5 4AD.

IPMS KENT. For full details please contact Ken Withey, 8 Belmont Road, London, SE25 4QF Tel: 0208 654 8531 Email: kenwithey@btinternet.com.

IPMS KINGSTON (CANADA). Contact Tony on 389 4878.

IPMS PROVINCES OF FRANCE. The URL for IPMS Provinces of France changed to <http://www.multimania.com/ipmspdf/index.htm>

IPMS SOUTH AFRICA. For further details contact Colin Burgess on 011 462 3549 or Email albertn@global.co.za or visit or Web site at www.kimberley.co.za/ipmsa.

IPMS SOUTH EAST LONDON please ring Paul Brack on 020 8650 6504 or Alan Partington on 020 8697 6929.

IPMS SOUTHAMPTON. For more details contact Nigel Robins on 02380 582808.

IPMS STE HELENE (Montreal, Canada). For information contact Jean Marc Perreault. Tel: 450 656 7243.

IPMS TORONTO (CANADA). Contact IPMS Toronto, 3219 Yonge St., Suite 334, Toronto, Ontario, M4N 2L3, Canada.

IPMS WESSEX. For more details contact Karen Robins on 02380 582808.

IPMS YU-VOJVODINA (Yugoslavia). Contact Nenad Miklusev, Bulevar Veljika Vlahovica 56/10, 23000 Zrenjanin, Yugoslavia. Email: modelart@ptt.yu

JUNIOR MODEL CLUB, Midland Air Museum, Baginton, Coventry. For more information contact Dianne James. Tel: 024 76301033

KEMPSTON & DISTRICT SCALE MODELLING CLUB. Meet twice a month on alternate Tuesday evenings at Southfield Community Centre, Kempston, Beds at 7pm. All welcome, irrespective of skill levels. Contact Tony Issott on 01234 852780

KING'S LYNN SCALE MODEL CLUB meeting on the 2nd and 4th Wednesday of the month in the 'Workers Club' in King's Lynn. For more details contact Mike Condra on 01553 827126 or David Crump 01553 673744.

LINCOLN MODEL CLUB (IPMS Lincoln). For more information, contact Ian Crawford on 01522 533380.

KAIMAI BRANCH IPMS (NZ). Contact Peter Cook at bmc-ipmsnz@xtra.co.nz or Tel: 07 5756 517

KEIGHLEY PLASTIC MODEL SOCIETY contact John on (01535) 665722.

LEEDS IPMS. Meets 2nd Friday each month at Netherton Working Mens Club, Netherton Lane, Netherton, Wakefield. Contact Mike Robson on 01484 350612. Microbel100@ntlworld.com

LOTHIAN MODELLERS CLUB and Edinburgh IPMS. For details contact Ian Hanratty on 0131 665 4087.

MARITZBURG MODELLERS CLUB, South Africa. Contact Andy Williams 0331-961-850 or Alan Farre 0332 306446.

MANCHESTER IPMS Contact Karen Cunliffe on 0161 343 5475 or Bernard Chadwick 01942 675277 for discussions or further details.

MEDWAY MODELLING CLUB, Gillingham, Kent. Contact Harry Greenwood 01634 829531 (daytime) or Bill Clark 01795 426686 (after 7pm).

MEIR MODEL CLUB, Meir Community Centre, Meir, Stoke-on-Trent, meetings every Wednesday 7-10 pm. For more details contact Alan Ewart (Tel: 01782 388892) or Cliff Kelsall (Tel: 01782 543026).

MERCIA SCALE MODELLERS (incorporating IPMS Mercia). For more information contact Simon Mepstead, 7 Pembroke Way, Nuneaton, Warks. Tel: 02476 745551.

MERSEYSIDE SCALE MODEL CLUB (IPMS) meet 1st Tuesday of the month at Royal British Legion, Crosby Road North, Waterloo. L22 0LG.

MILDENHALL PLASTIC MODEL CLUB. Meets 1st & 3rd Wednesday each month in British Legion Club, High Street, Lakenheath, Suffolk, at 8pm.

MILTON KEYNES SCALE MODEL CLUB. Contact Brian Porter on 01582 660984. Email: RPorter786385414@aol.com. The club website is www.ipmsmk.org.uk

MODELLSPORTCLUB HANS GRADE Berlin, c/o Mr. B. Schurak, Lindenstr. 8, D-15831 Wassmannsdorf, Germany. Visit www.msc-hansgrade-berlin.de or e-mail sschurak@aol.com

ALLROUND MODELLING Society Eeklo. The Modelbouw Eeklo website has changed from www.ping.be/modellbouw-eeklo to <http://users.compaqnet.be/modelbouw.eeklo>.

IPMS NENE VALLEY. For more details contact Dan Richards on 01733 572898.

NORTH NORFOLK MODEL GROUP. For more information contact P. Pegg on 07760 433734.

NORFOLK SCALE AIRCRAFT MODEL GROUP (Norwich). For information call John Turner on 01603 890595.

NORTH ESSEX MODELLERS. Ring Eric Dyke on 01206 823413 or Mark Harris on 01206 842694 for details.

NORTH SOMERSET MODELLERS SOCIETY. For more information ring Fred Tooke on (01934) 416798.

NORTH STAFFS MODEL CLUB. Contact Stefan on 01782 618181 or Phil on 01782 544612 for details.

NOTTINGHAM AND DISTRICT IPMS. Contact James Downham, 17 Quantock Close, Nottingham, NG5 9QA or Tel: 0115 2696799

NUCLEO DE MODELISMO DE ESPINHO Rua 8, No. 931, Espinho, Portugal. Please contact Jose Ferreira on 351 22 7310745 or email nme.modelismo@clix.pt

'ON THE ROAD' MODELLING CLUB from Brugge (Belgium) for all civil vehicle modellers. For more information please contact Peter D'Hollander @village.uu.net or Tel: 053/77.47.18.

GREATER PETERBOROUGH MODEL CLUB For more details contact Keith Boucher, Tel: 01733 242683

PEMBROKESHIRE PLASTIC MODELLER'S SOCIETY. A friendly group of like-minded individuals from all spectrums of the plastic modelling fraternity who meet fortnightly to exchange information and techniques to assist each other in their hobby. Contact: Mark at Merlin Models on 01437 762633 or e-mail mark.rosser@btinternet.com

THE PENSNETT MODEL MAKERS SOCIETY. For more details contact John Boucker on 01384 834437.

PLYMOUTH SCALE MODEL ASSOCIATION. Contact Roger Haskell on 01752 267527 after 6pm.

PMC KOELN E.V., Germany. For more information contact Michael Winkler, Mertener Str.6, D-50321 Bruehl, Germany or Email: nc-winklemi@netcologne.de

POOLE SCALE MODELLERS Contact Malcolm on 01202 694037.

POOLE VIKINGS MODEL CLUB (Incorporating Dorset IPMS). For more details contact Paul Moores on 01202 483932.

THE POTTERIES MODEL CLUB, Stoke-on-Trent. For more information contact the club secretary Alan Ewart on 01782 388892.

ROARING 40s MODEL CLUB, IPMS Otago/Southland (New Zealand). Contact Lloyd Stridiron, 131 Black Road, Otatara 9 RD, Invercargill. Tel: (03) 213 0479 Email: tigmooths@southnet.co.nz Web: www.geocities.com/roaring40sdunedin/index.html. We meet weekly.

ROBERTSBRIDGE AVIATION SOCIETY MODEL CLUB. Please contact David Morrice, 27 Derwent Drive, Tunbridge Wells, Kent. TN4 9TB Tel: 01892 520856

ROMSEY MODELLERS meet third Thursday of the month at the The Red Cross Hall, Great Well Drive, Romsey. For further information contact Les Cooper, 28 The Tylshades, Romsey. SO51 5RJ. Tel: 01794 522968.

SALISBURY IPMS. Please contact: Peter James, 'Lothlorien', 18 Ilyton Avenue, Firsdown, Salisbury, Wilts, SP5 1SH. Tel: 01980 862403.

SHROPSHIRE SCALE MODELLERS (IPMS Telford). Contact Gary Stevens, 8 Whitmore Road, Shrewsbury, SY1 3BT.

THE SILICON VALLEY SCALE MODELERS meet at the Los Altos Public Library, Los Altos, California on the third Friday of every month. For more details contact Chris Bucholtz on (408) 723 3995 or Email bucholtzc@aol.com.

IPMS SOUTH EAST ESSEX/SOUTHEND- ON-SEA). Contact Simon Oliver on 01702 614831 (after 7pm) or John Drummond 01702 205494 (after 7pm).

SOUTH CHESHIRE M.M.C. (Crewe). Meet every other Wednesday at the Crosville Social Club in Crewe. For more details contact Phill Podmore, Tel: 01270 256 880.

SOUTH LONDON SCALE MODEL CLUB. For details and an information sheet, please ring Steve Hubbard on 020 8514 3840 or 0860 228194.

SOUTH SHORE IPMS, Pembroke, MA (USA). For more details contact Bob Burnside Tel: 617 659 4883.

IPMS SPAIN (Amigos Modelistas Placentinos), Apdo. de Correos 287, 10600 Plasencia, Spain. Contact Julian Herrero Email: mig21@retemail.es.

SPRUES-R-US Scale model club meets every second Wednesday of the month in the Methodist Hall, North Road, Letchworth, Hertfordshire at 7.30pm. For further details please contact Peter Magee on 01462 640642 or Peter Park on 01462 675779.

ST. EDMUNDSBURY SCALE MODELLERS. Contact Rod Jones (Secretary) on 01284 - 766104.

STAFFORD IPMS MODEL CLUB. For information contact; Terry Campion, 3 Leedhams Croft, Walton-on-Trent, Swadlincote, Derbyshire. DE12. Tel: 01283 713602.

STIRLING & DISTRICT MODELLERS SOCIETY SAE for programme to W.Wood, 37 Woodlands, Sauchie, Clacks. FK10 3PJ. Tel: 01259 722428.

SUNDERLAND SCALE MODEL CLUB meets in Fulwell, Sunderland. Contact Peter Hall 0191 513 0489 or David Dykes 0191 548 7777.

SOUTH DOWNS MODEL GROUP. For information please contact 01403 782638.

NORTH SURREY MILITARY MODELLING GROUP For more information contact Keith Goldsworthy on 020 887327886 or Kevin Jarrett on 020 83938534. Alternatively you can Email the club at nsmmc@cwcom.net

SUTTON COLDFIELD MODEL MAKERS' SOCIETY For more information contact Robert Day, 'Ashgrove', Didgley Lane, Fillongley, Coventry. CV7 8DQ. Tel: 01676 540469.

SWANSEA MILITARY MODELLING SOCIETY. Held in Morriston, Swansea on the second Wednesday of each month. Contact Keith Ryder (Branch Secretary) on 01792 815710 or Email keith_ryder@hotmail.com

TAYSIDE MODELLING SOCIETY. Details from Keith Herd, 38 Ashgrove, Perth. Tel: 01738 629555 (Sorry no under 16's).

IPMS/USA SUPERGLUERS OF SAN ANTONIO, TEXAS, USA. For more information contact Thunderbolt Hobbies (Tel: [210] 736 0768) and ask for Bob Kelly, Ian Hemmings or Skippy Harris.

THE OKLAHOMA HISTORICAL MODELERS SOCIETY. For more information contact David Kimbrell at ivandak@aol.com or Rick Jackson at rjackson@socket.net.

THURROCK SCALE MODEL CLUB. For more information please contact John Davies on 01375 406895 or Steve Moore on 0708 853139.

THAMES VALLEY SCALE MODELS CLUB. For further details please contact Keith Sherwood on 01494 533778.

WALLINGFORD (IPMS). For more details contact Club Secretary Phil Golding on 01491 201827 or George Clark on 01491 201902.

WARRINGTON (IPMS). For details contact Dave Foxall on 01925 825993.

WATFORD MODEL CLUB. For more info. contact Nigel Foster on 01525 384875.

WEST BERKS SCALE MODEL CLUB. Contact Adrian on 01635 49524 evenings before 9pm or write to: 14 Oakley Rd, Shaw, Newbury, Berks, RG14 2PD.

WEST MIDDLESEX IPMS. Contact Les Clancy on 01784 465191 or Tony Horten on 020 8384 3840 for details.

IPMS WEST RIDING new branch sec's email will be martin.johnston2@ntlworld.com Tel: 01132943321.

YORK & DISTRICT PLASTIC MODELS SOCIETY. Contact Chris on 01430 873408 or Joel on 01904 766895.

New Model Clubs Forming

SIGPMA A NEW SIG for all those interested in Portuguese Military Aviation. Contact: P.O. Box 52054, 4202 - 801 Porto, Portugal. Email: ruidom@mail.telepac.pt

YU AVIATION SIG. Please note that this group's Email address has changed from modelart@ptt.yu to yasig@eunet.yu. The group also has a new postal address; Nenad Miklusev, Novosadskog Sajma 16/301, 21000 Novi Sad, Yugoslavia.

YUGOSLAV AVIATION SIG discussion board at <http://disc.server.com/58276.html>.

I AM CURRENTLY TRYING TO REVIVE the 1/144th scale military aircraft SIG. If anyone is interested in joining please contact David Campbell, Faircroft, 3 High Street, Stanwick, Northants. NN9 6QA or Email David.Campbell@Tesco.net

Special Interest Groups (SIGs)

AXIS EAGLES - WW II Axis Aircraft Special Interest Group meets bimonthly at Ashburton Library, 154 High Street, Ashburton, Victoria, Australia. For more Info. contact axis eagles@ozemail.com.au or jjbaxter@techinfo.com.au

IPMS GULF WAR SIG. For more details contact Gary Madgwick, Brook Barn, Letcombe Regis, Wantage, Oxon, OX12 9JD. Tel: 01235 769746. Email: gary.madgwick@dial.appleinter.net.

HAVE APPLIED TO REGISTER the, DC-3/C-47 Tribute SIG anyone interested in joining please contact me on 01480 861387 or by email D.gait@virgin.net Civil and Military modellers welcome.

THE ANZAC SIG is forming covering Australian, New Zealand, Canadian, UK and Commonwealth Military subjects post 1960. For more information contact Gary Madgwick, The Aviation Workshop, Brook Barn, Letcombe Regis, Wantage, Oxon, OX12 9JD. Tel: 01235 769746.

PURSUIT S.I.G for anyone interested in American pursuit aircraft. Contact Chris Norfolk on 01132176325 or at christophernorfolk1@ntlworld.com

The IPMS Racing & Record Aircraft SIG. For more information about the SIG and our quarterly newsletter ('Bent Throttles') contact Anders Brunn, Bradstupsvagen 21, SE-129 39 Hagersten, Sweden. Email: anders.brunn@telia.com.

THE V-BOMBERS. A proposed IPMS(UK) Special Interest Group dealing with all aspects of modelling the Valiant, Victor and Vulcan. For more details contact Trevor L. Williams, 68 Laneside, Willenhall Wood, Coventry, CV3 3EY

WORLD WAR ONE SIG has a new website at <http://www.users.globalnet.co.uk/~ipmsuk/wingswiresig.htm>

WORLD HELICOPTER SIG. Contact Geoff Arnold, 44 Rowan Road, Market Drayton, Shropshire. Email: geoffrey.a-hell-sig@whsmithnet.co.uk

WINGS 'N' WIRES. IPMS World War I Aircraft SIG. Contact Joel Christy, 35 North Lane, Haxby, York. YO32 3JS

IPMS UK Fleet Air Arm Special Interest Group. For more details contact Steve Hubbard on 020 8220 3638. E: faasig@msn.com

IPMS (UK) WEB site at <http://www.users.globalnet.co.uk/~ipmsuk>. Contact: membership@ipms-uk.co.uk

8TH USAAF IN WWII SIG being started. Please contact either Mr L Wells, 17 Helford Drive, Breadsands Park, Paignton, South Devon. TQ4 7NL. Tel: 01803 844977, email: welly_2002@yahoo.com, or Mr R Gray, 92 Prospect Avenue, Pye Nest, Halifax, West Yorkshire. HX2 7HP, email: trebor@yarg1861.freemove.co.uk for more information.

readers' classified

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Aero Modeller magazines

We have a large number of the above mags available dating from 1940s to about 1997 plus some aeronautic yearbooks from 1935, engine tests from 1960, petrol engined model aircraft by C. E. Bowden 1945. Aero Modeller annuals from the 1940s upwards, Model Aeronautical Digest 1944 and some 35 yearbooks. These will be sold to raise funds for Northants Model Makers. Call Bob Humpage on 01933 312364 (evenings)

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on the Spitfire Parts 1, 2 & 3. As new condition, £24 the complete set. AJ Press monograph No.2, Heinkel He 111, £6. All include UK P&P. Contact Martin Garrett on 0773 3188534

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on Buccaneer, Wildcat, Seafire, Junkers Ju 88 and Junkers Ju 87. Contact Ken White, 4 Clarkston, Easttriggs, Annan, Dumfriesshire, DG12 6TH

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through to present (any quantity), especially Airfix, Matchbox, Tamiya etc. Also looking for unwanted kit instructions/header cards and box tops/colour option illustrations etc to help me build up my reference library of same. Contact R.A.Franks at PO Box 426, Bedford. MK43 0WF, or email me at SAMed@compuserve.com.

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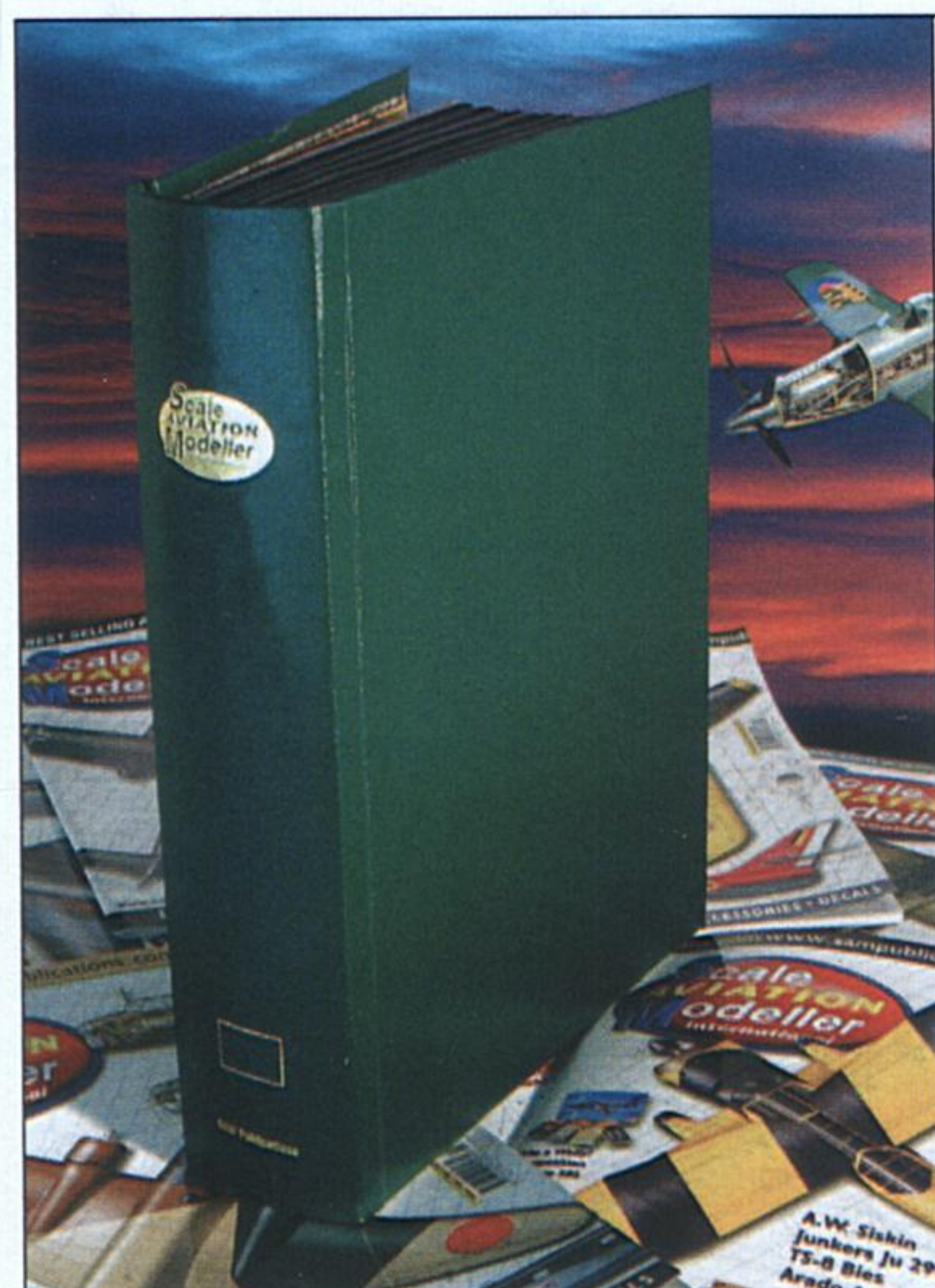
information or profiles of Lt Cdr. E. Esmonde's Swordfish colour scheme, serial, code letters etc at the time he was KIA and win his VC. Contact D. Collett, 21 Claremont Road, Grimsby, N.E. Lincs, DN32 8NU

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I would like to exchange kits,

magazines, photographs etc with a UK enthusiast. Contact Vaclav Simecek, Werichova 964, 152 00 Praha 5, Czech Republic

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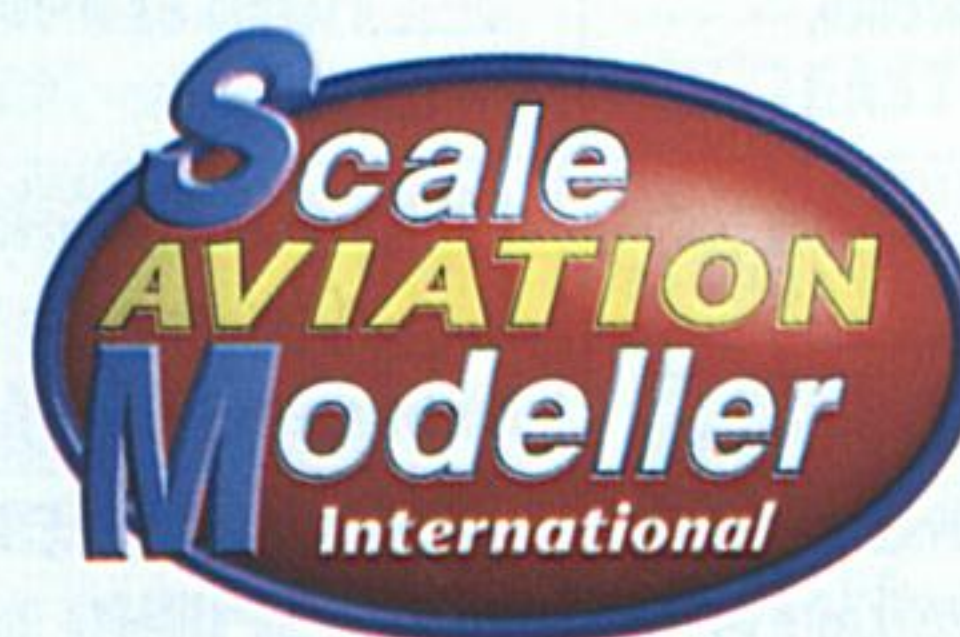
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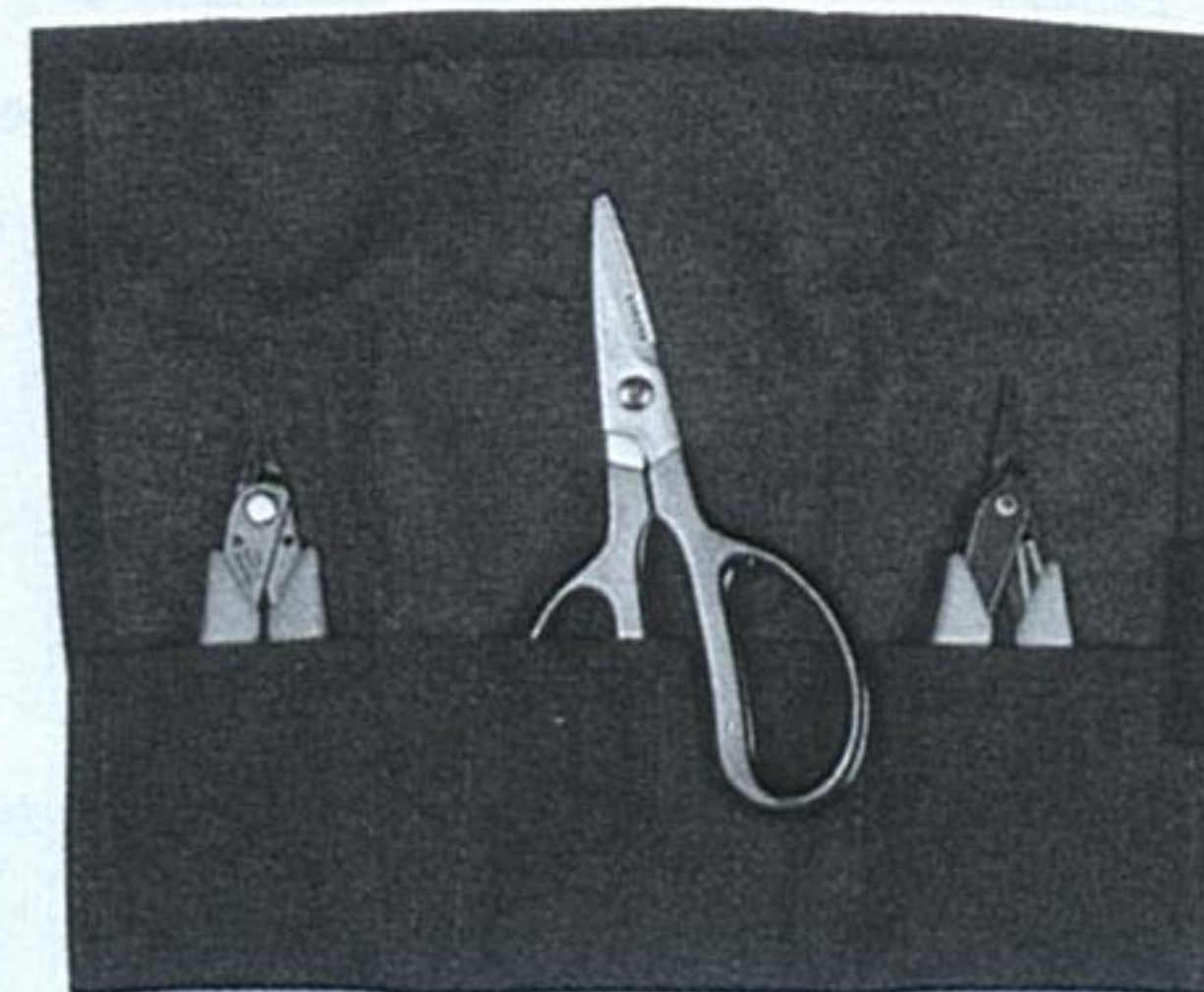
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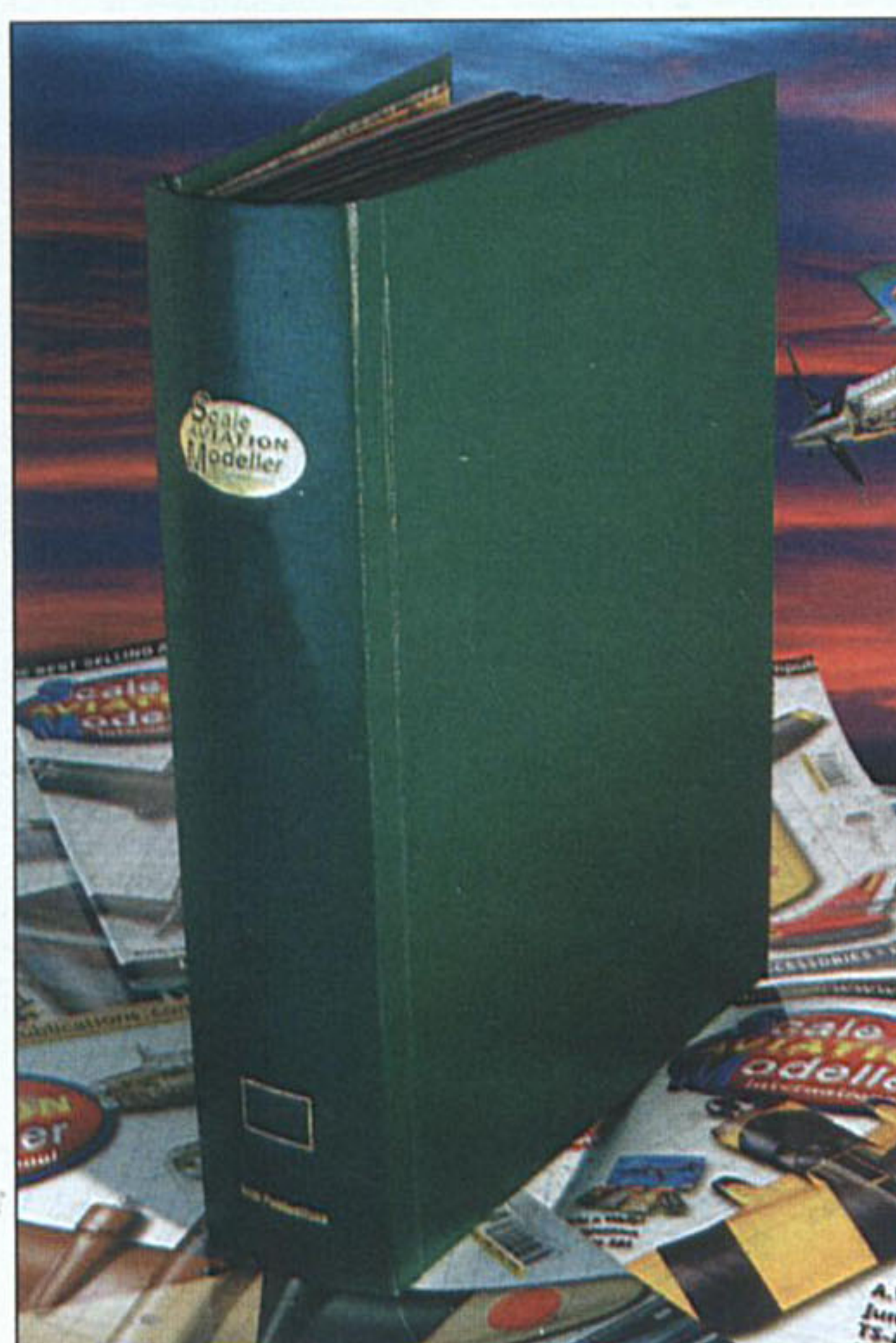
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Shows

events diary

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July 4th

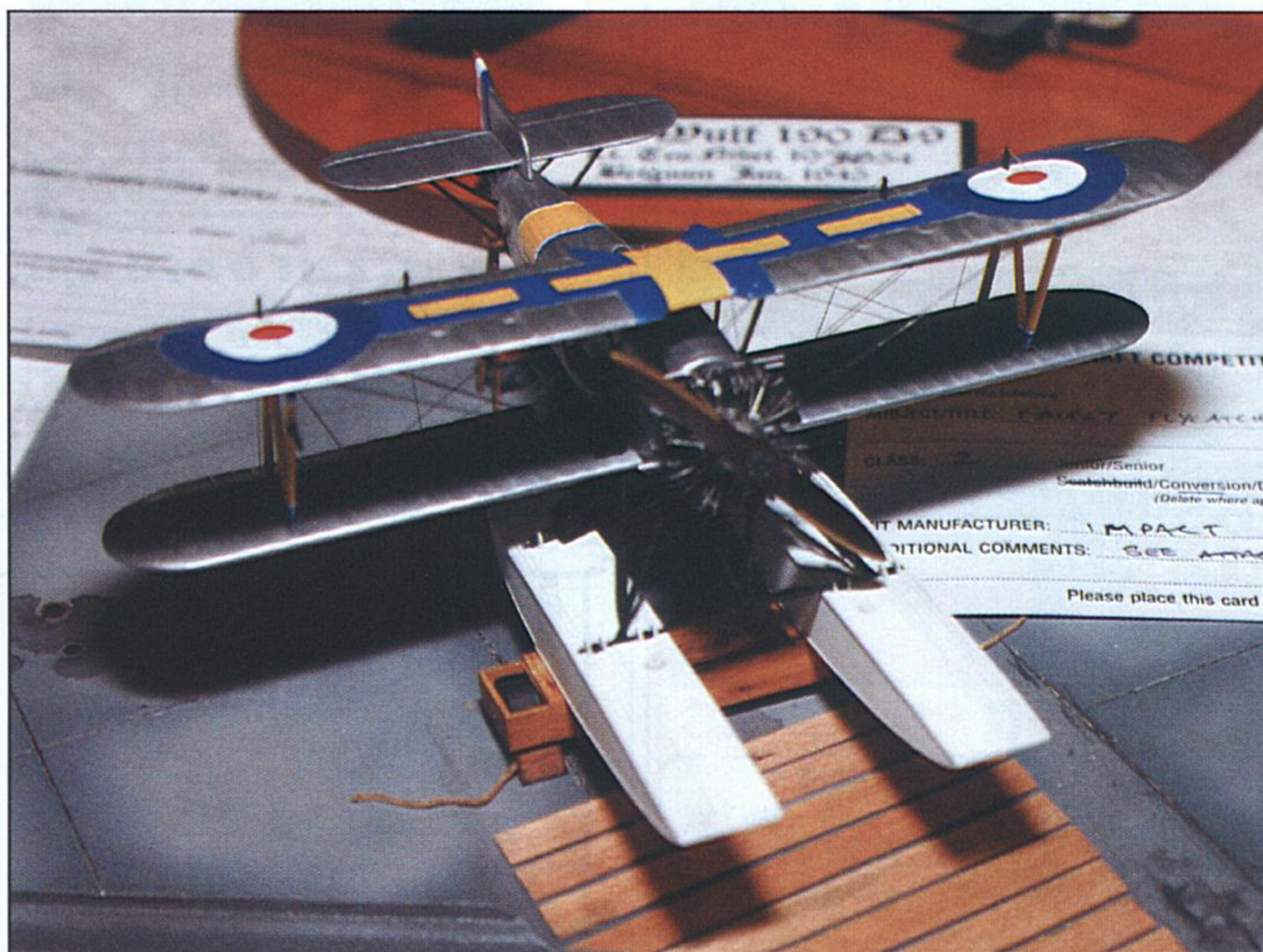
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July 10th – 11th

IPMS Durham (NEMS) 11th Annual Show at the Brough Hall, The Headlands, Hartlepool. For more information contact Brian Watt, 33 Caverham Road, Chapel House, Newcastle Upon Tyne NE5 1JP T: 0191 2291067, E: B.PWatt@btopenworld.com or Paul Bowen, 8 Hollinside Terrace, Highfield, Rowlands Gill, Newcastle Upon Tyne NE39 2JW T: 0120 754667

July 25th

Model Mania, Wallingford IPMS Show at Cholsey school, nr Wallingford, Oxford. For more details call 01491 652295 or 652536, or visit www.cholseymodelmania.co.uk



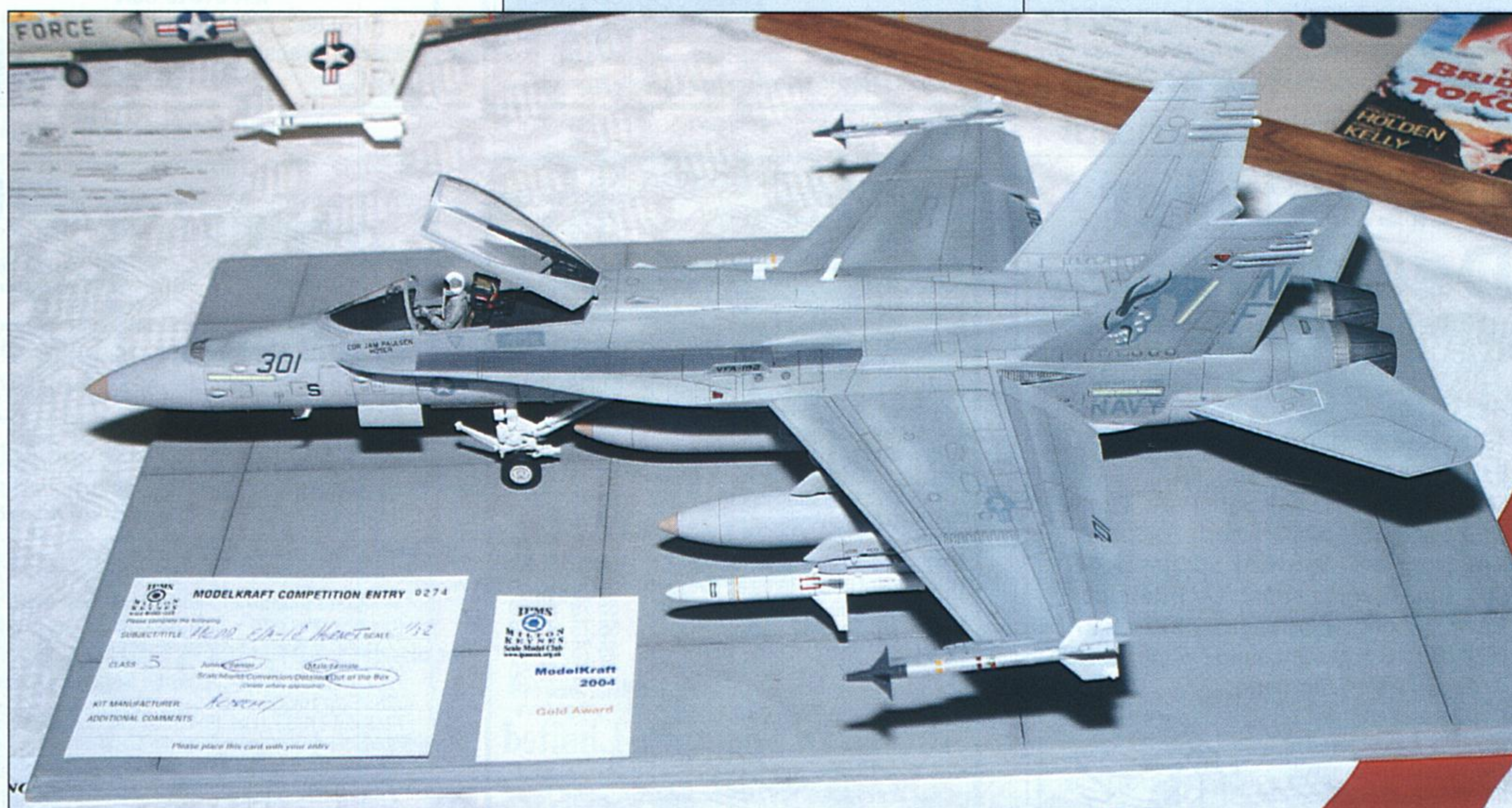
Modelkraft 2004

Photos by Derek Barrett

February 1st 2004, Milton Keynes. There were approximately 80 exhibitors and clubs from all parts of the UK.

above:
This fully detailed Fairey Flycatcher was built from the old Impact kit, and won a Gold.

below:
A lovely Academy 1/32nd F-18 Hornet.



August 15th

Redhill Airport. Aviation/Airline Collectors' Fair, Redhill, Surrey. T: 01737 822200

September 5th

Aero Space & Vehicle Club Model Show at The Community Centre, Church Road, Woombourne, nr Wolverhampton, West Midlands. For more details contact J. Carter, Tansy Field, Bayton Common, Kidderminster, Worcestershire. DY14 9NN or D. Cattell, 43 Balmoral Drive, Willenhall, West Midlands, WV12 5TH

September 5th

IPMS Bampton 2004 Annual Show at The Priory centre, St Neots, Cambridgeshire from 10am till 4pm. For further information contact Sam Bratby on 014887 830689 or Email: sambratby@supanet.com.

September 5th

Leicestershire IPMS Model Show at Lutterworth Wycliffe Rooms, Leicestershire. For more information contact Martin Connolly on 01455 284600 or E: connollyshouse@aol.com

September 19th

ROCON 25 at The Park Plaza Hotel (formerly the Radisson), 175 Jefferson Road, Rochester, NY, USA. For more details contact Jim Kloek, T: (585) 385 3899 or E: jkloek1@rochester.rr.com.

September 19th

Wings and Things 2004 Model Show presented by IPMS Fenland and Spalding Model Club at the Grammar School, Spalding. All proceeds go to the Air Ambulance. Admission £1.00 (OAP and under 16s FREE). 10.00 to 4.00pm. For more information contact Pete on 01775 767729 or Mick on 01553 827126

September 21st – 25th

Africa Militaire 2004, Pretoria, South Africa. For more information contact Bobby Keller, Tel: +27 12 6715493, Fax: +24 12 6638552, Mobile: +27 83661594, E: commshop@mweb.co.za. Or visit www.aadexpo.co.za

September 25th

Aeronautical Collectors' Fair, Shoreham airfield, Sussex. For more information contact 01424 440644

September 26th

Midland Air Museum Model Show. For more details contact the Midland Air Museum, Coventry Airport, Baginton, Warwickshire. CV8 3AZ. T/F: 024 76 301033

September 26th

East Anglian Model Show 2004 at the Sports and Leisure Centre, Bury St Edmunds, Suffolk. For more details contact Dominic (Show Secretary) on 01473 743189 (Home), 0781 5909315 (Mobile) or E: aileen@dominichome.fsnet.co.uk.

October 2nd

Glasgow Model Show 2004 organised by Glasgow IPMS and Miniature Armour Group at the Kelvin Hall on Argyle Street

October 2nd – 3rd

IPMS Belgium National Convention 2004 at the Oktoberhallen of Wieze, 20 km from Brussels. For more information visit www.ipms.be in late May or early June. Clubs, exhibitors or traders wanting an event file (to be sent around the same period) can forward their address to E: didier.waelkens@skynet.be or IPMS Belgium, Esdoornlaan 33, B-1850 Grimbergen, Belgium

October 9th

Rushmoor Model Show, Shakespeare Road, Bedford. For more information contact Tony Issott, Silverlink 2B, King Street, Kempston, Bedfordshire MK42 8BN

December 5th

Midland Air Museum Xmas Model Show. For more details contact the Midland Air Museum, Coventry Airport, Baginton, Warwickshire. CV8 3AZ. T/F: 024 76 301033

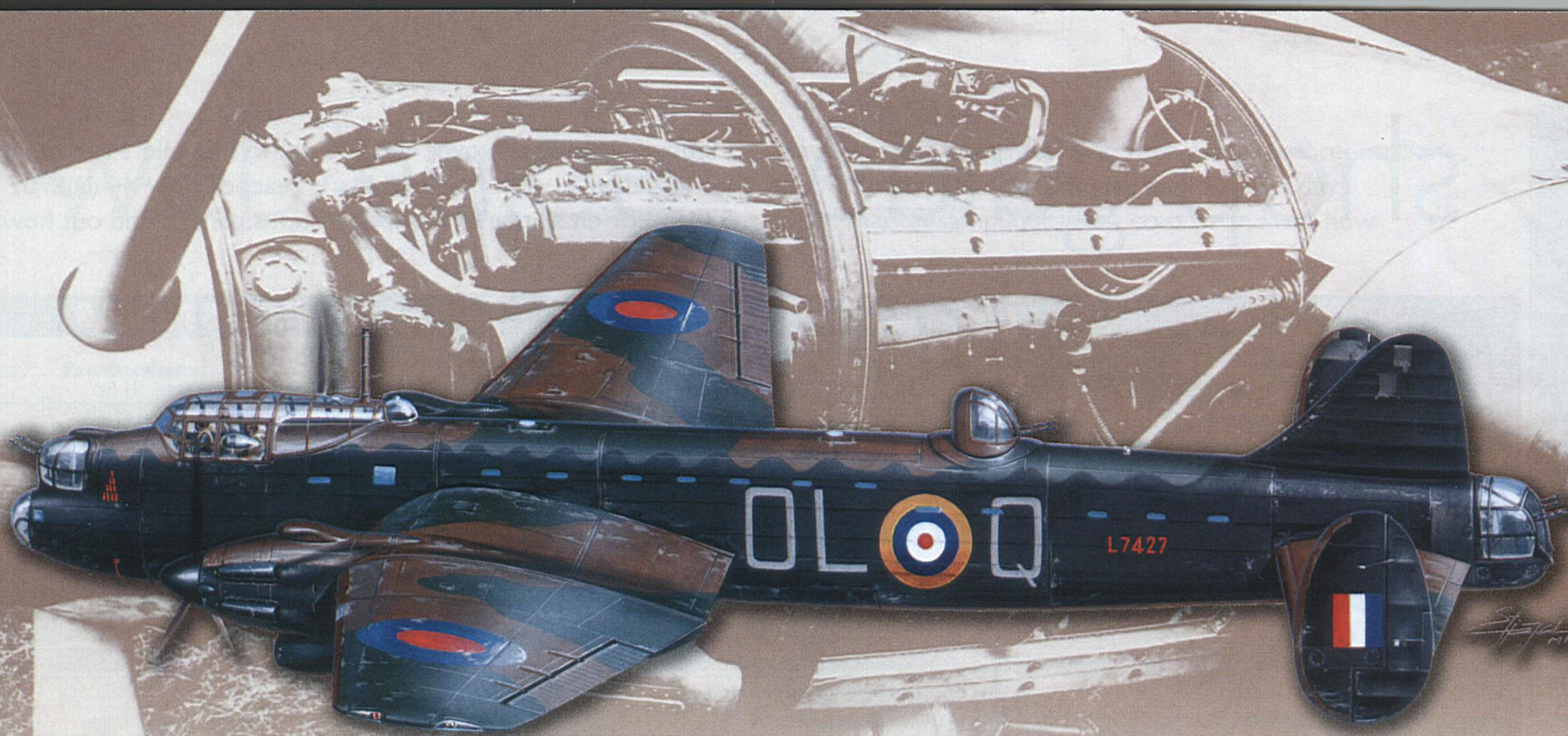
2005

March 19th – 20th

Model-Ex 2005 at Windmill School, Windmill Lane, Raunds, Northants. For more information contact Bob on 01933 312364 or Ray on 01933 680044

Events

Scale Aviation Modeller International will advertise forthcoming events in this column free of charge for event organisers who wish to give advance notice of their shows. We will continue to run your notice until the event is held, space permitting.



Win a Manchester!

Scale Aviation Modeller and **MPM Production Ltd** have linked up to bring you the rare chance to win this superb brand new kit of the Avro Manchester, the ill-fated predecessor of the Lancaster.

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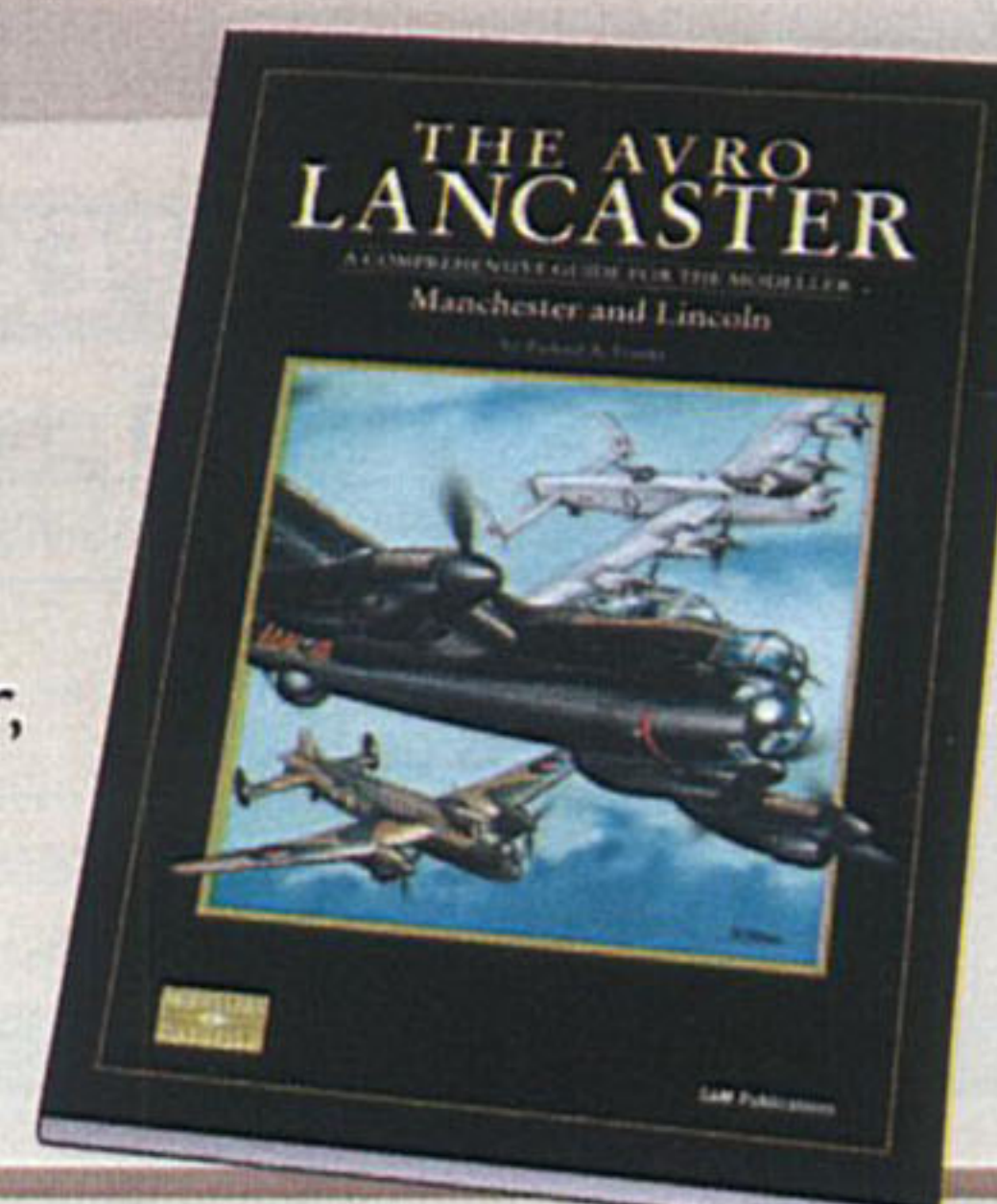
Which troublesome engines were fitted to the Avro Manchester?

to: Manchester Competition, SAM Publications, Media House, 21 Kingsway, Bedford, MK42 9BJ

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Competition Rules

Employees/volunteers working for SAM Publications, MPM and associated companies or their families are not permitted to enter. The first entry drawn will win. Entries are limited to one per person/household. No correspondence will be entered into. The judges' decision is final. Winners names will be published in a future edition of Scale Aviation Modeller. All entries must reach SAM Publications by 31st September 2004, when the prize draw will take place.

Note: this competition is open to our entire worldwide readership.

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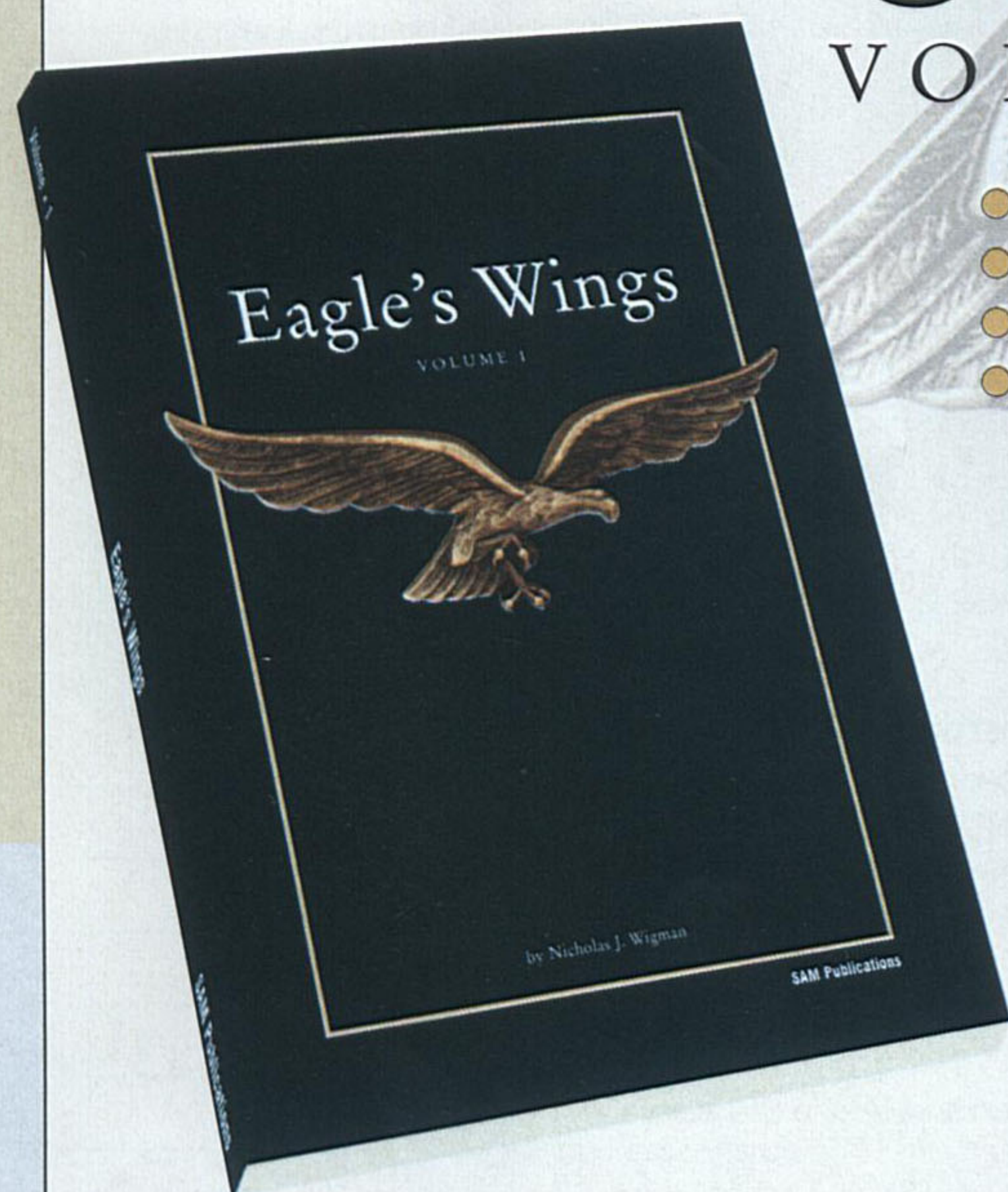
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Advertisers' Index

Aeroclub Models	685
Aircraft in Miniature	693
Aires Hobby Models	635
Amerang	617
Andy Pack Models	685
Aviation Hobbyshop	625
Brigade Models	685
CMK	675
Collect-Aire Models	693
Colpar Hobbies	693
Copperstate Models	693
Creative Models	625
Dutch Decals	693
Eaglestrike Productions	627
Eduard MA	621
Fantasy Printshop	693
Halifax Modellers World	685
HG Hannant	675
Ian Allan Publishing	689
Joe's Models	685
Kagero	689
Kingkit	693
Kit Krazy	689
KP Kopro	624
Lifelike Decals	693
Lonewulf Models	693
LSA Models	635
Matador Models	685
Misterkit	675
Model Design Construction	665
MPM	665
MR & ME's World of Models	685
Parade Figures/Linden Hill	675
Pocketbond	607 & 609
Revell KG	615
SAM Publications	
- SAMI Subscriptions	644
- SAMI Back Issues	645
- Eagles Wings	697
- Modellers Datafile 8	699
- Model Aircraft Monthly	654
Shrewsbury Model Centre	665
Squadron MMD	623
Tauro Models	685
Testors Inc	602
Toyway	700
White Ensign Models	689
Xuron	693



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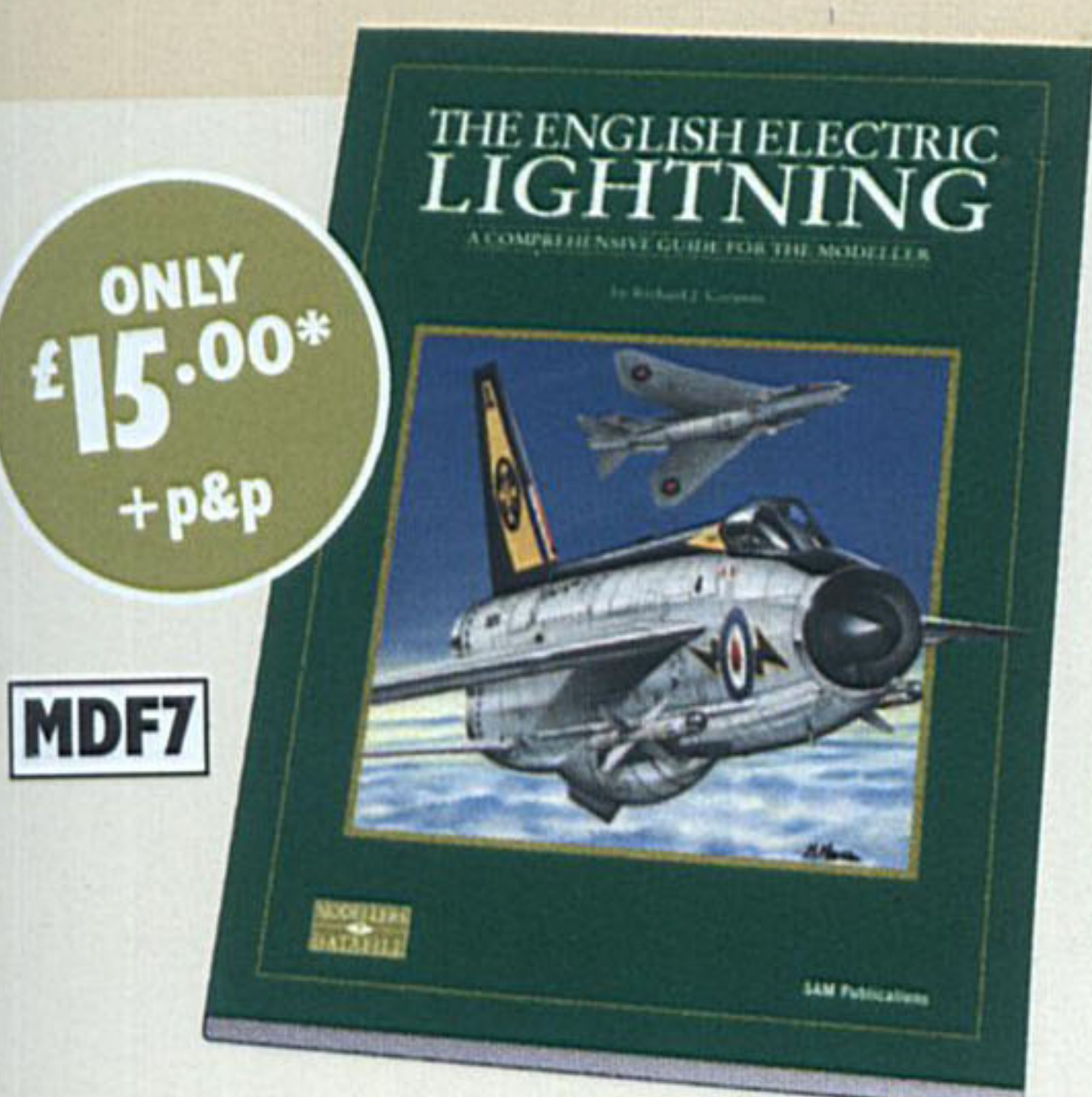
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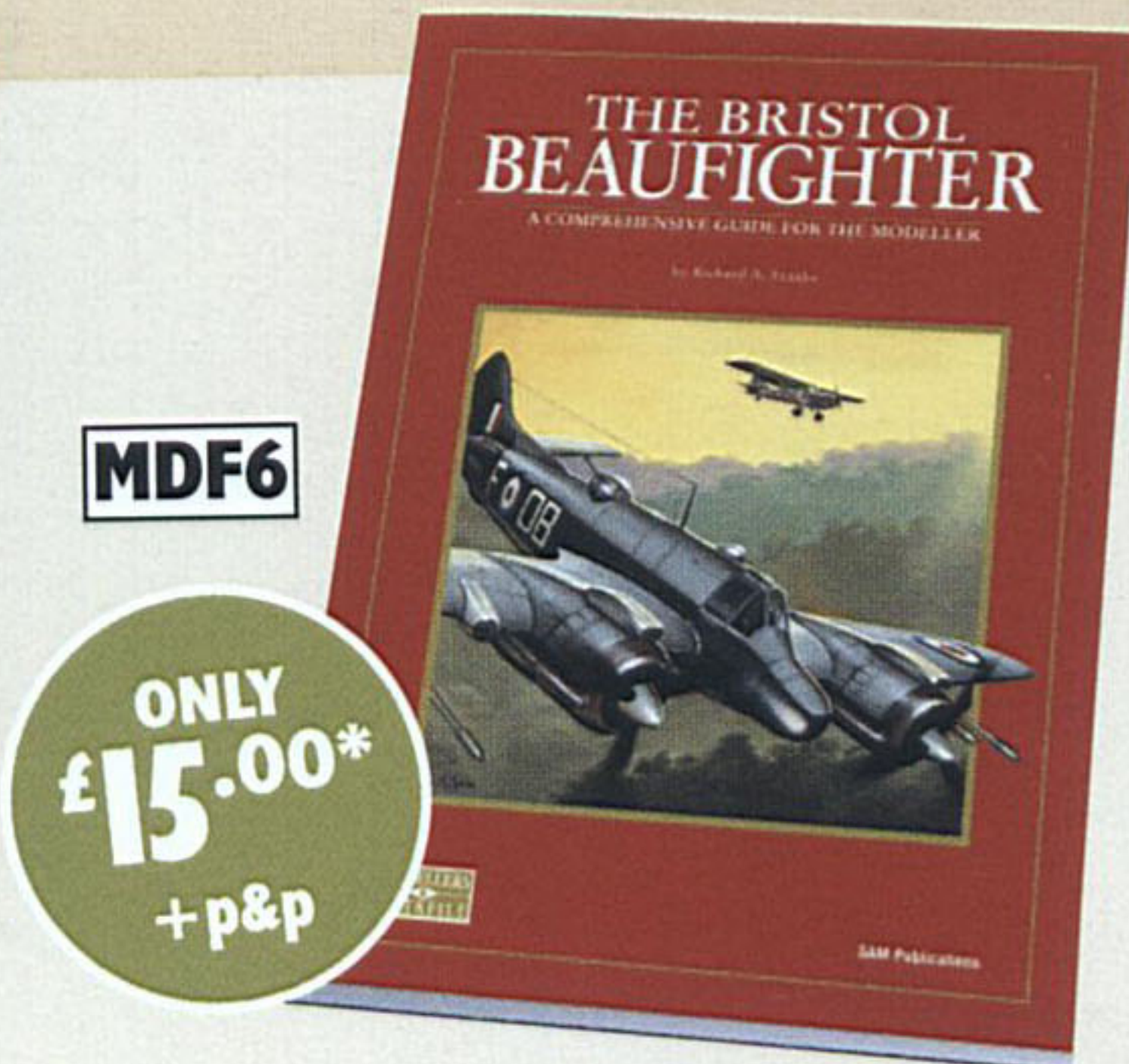
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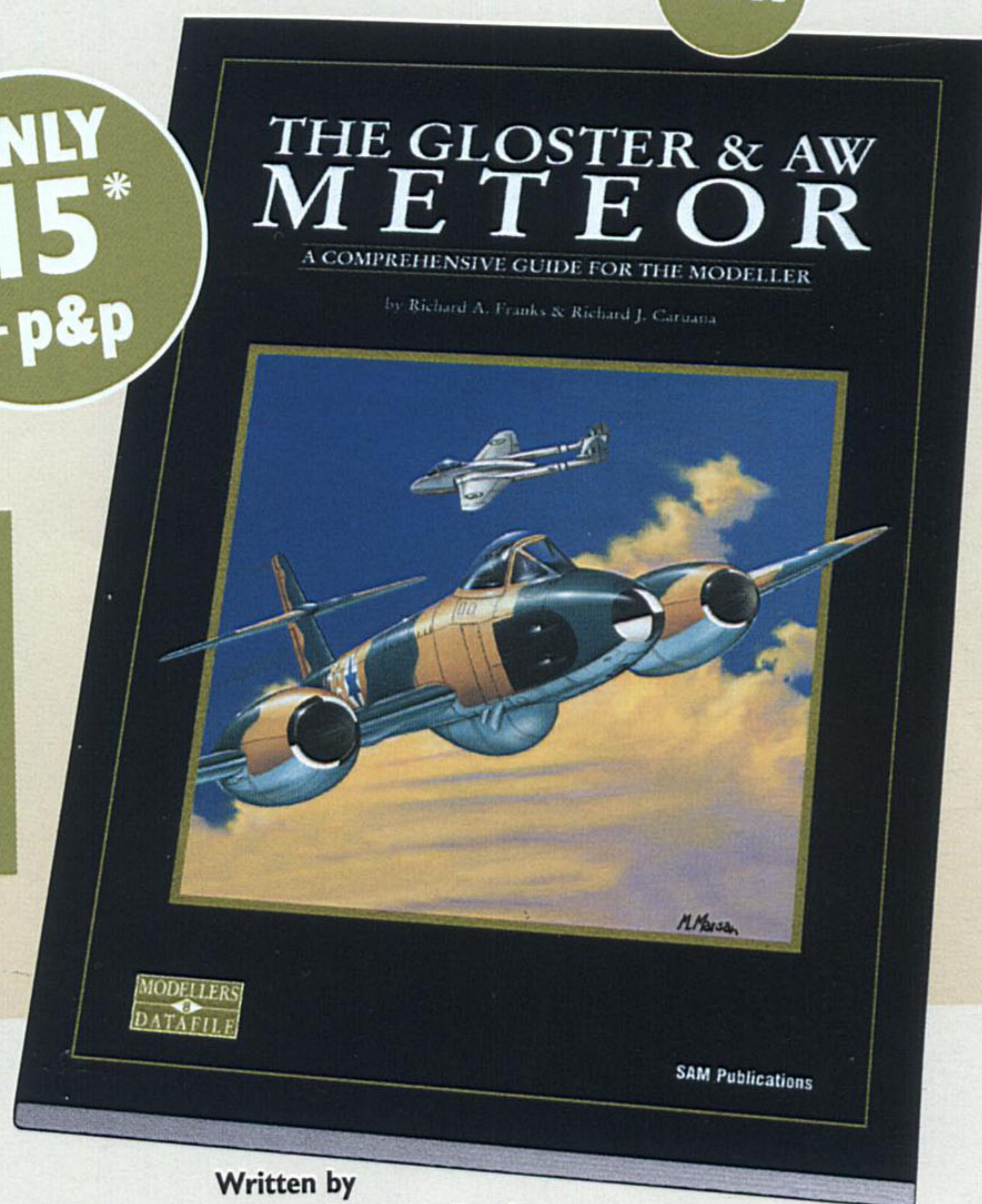
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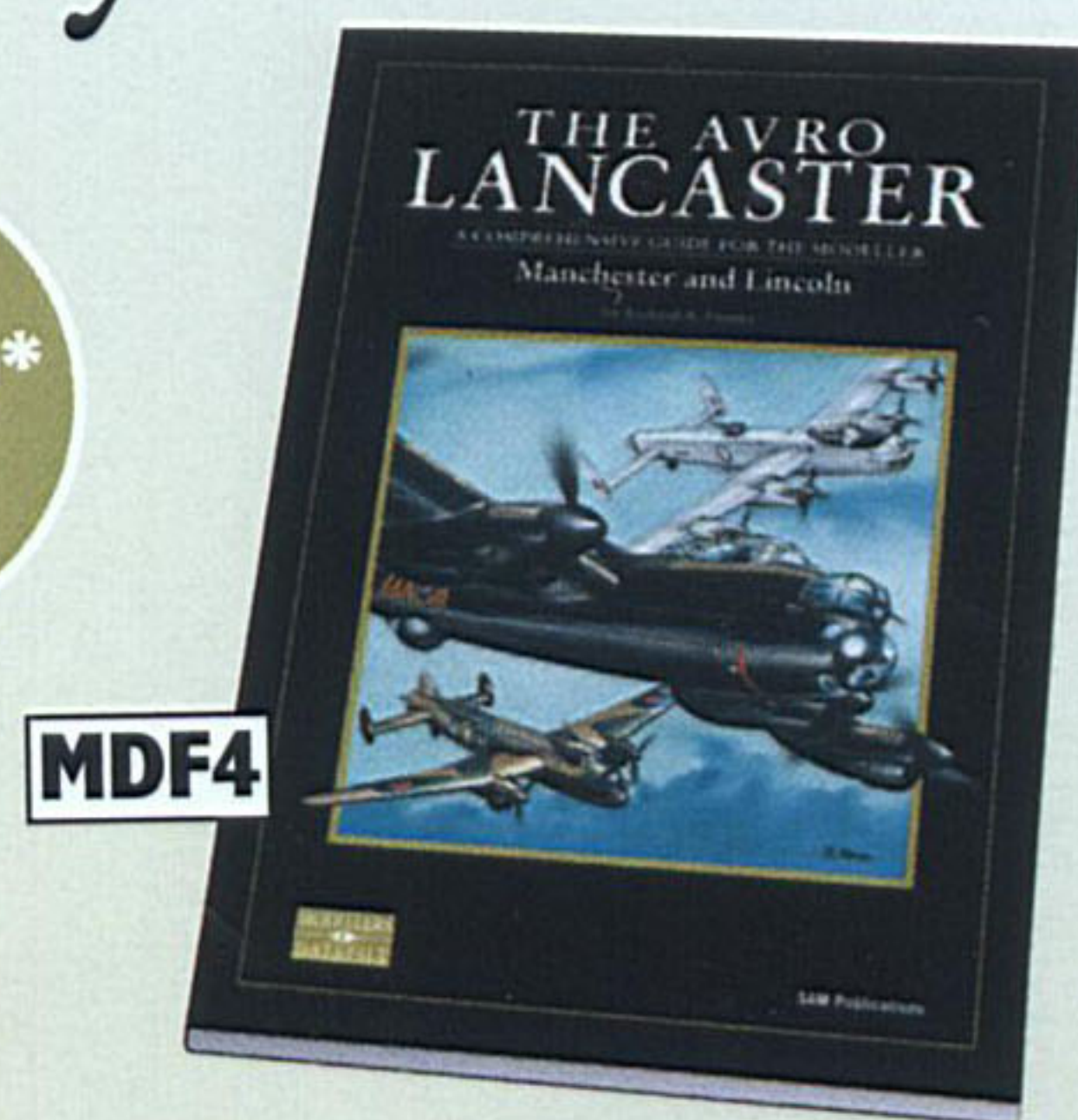
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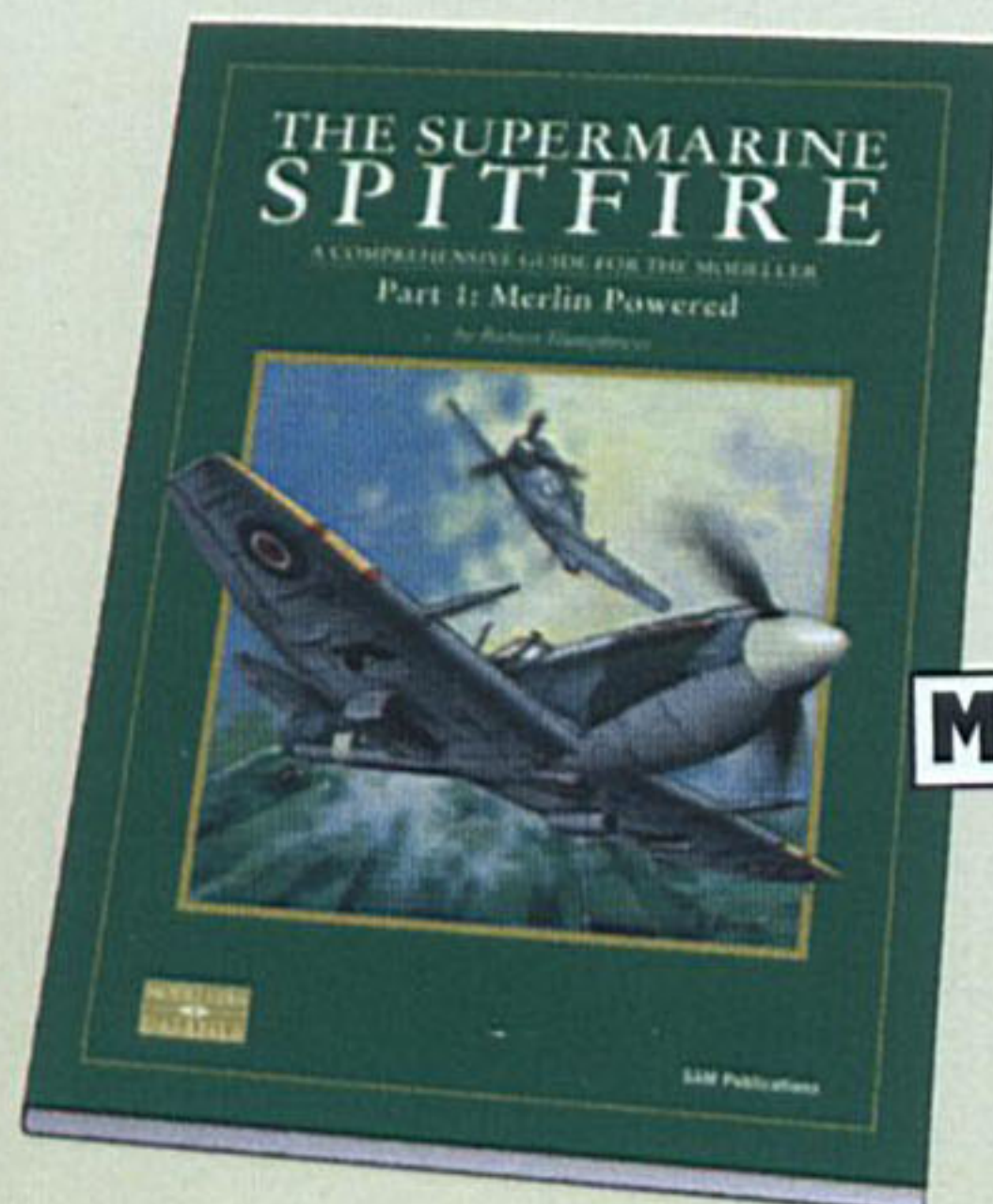
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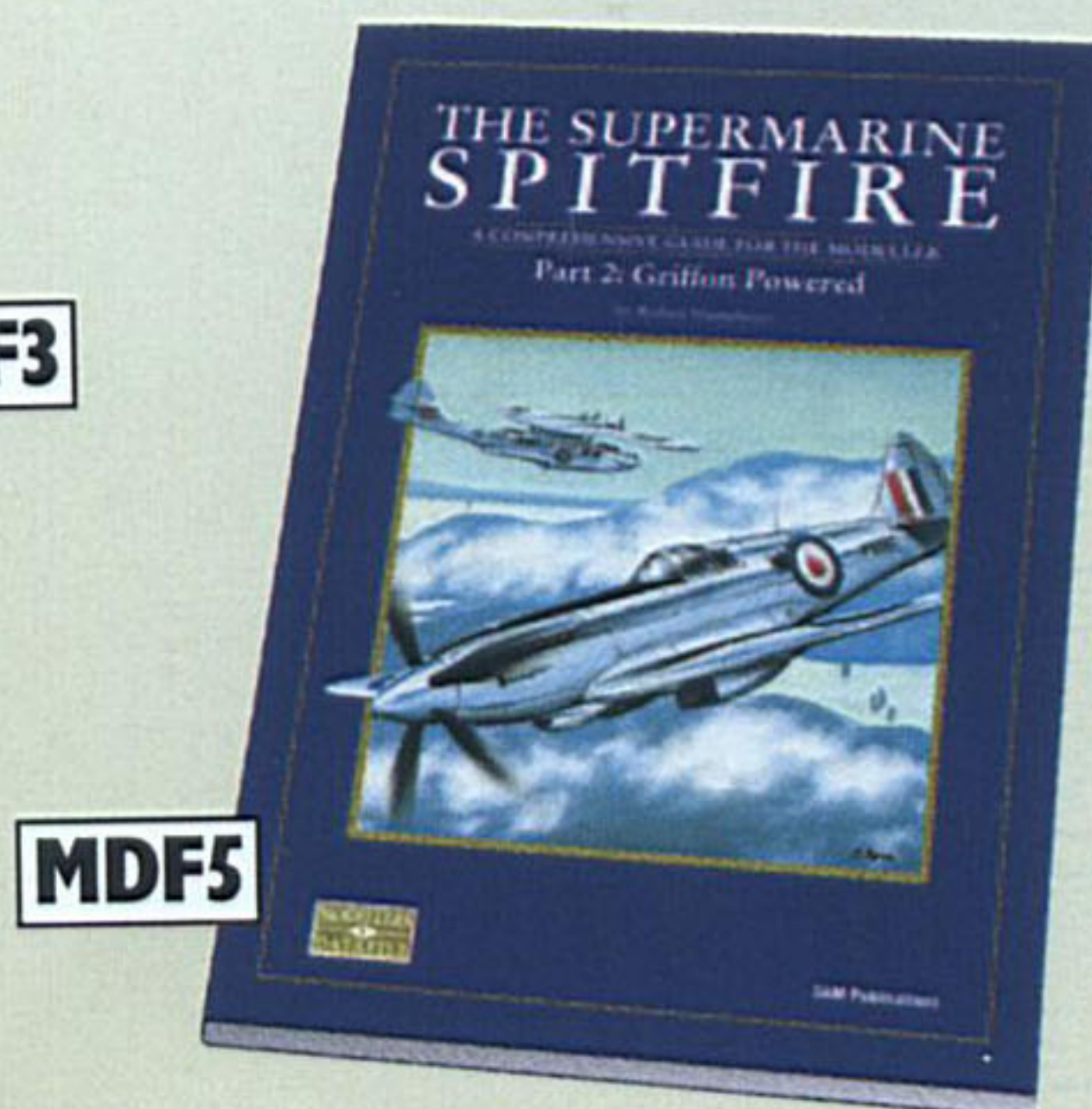
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